

R-Niobrara
Reports

January 5th 1934.

Chief, Biological Survey,
Washington, D. C.

Dear Sir:

Quarterly report from October 1 to December 31, 1933 on
the Niobrara Reservation Wild Life and Activities appurtenant
thereto.

1. Report on wild life observed during the period.

1. Buffalo - At the beginning of this quarter there were 128 buffalo on the Reservation and at the present time there are 122. There was the birth of one calf early in October. This is the latest born calf since I have been in charge of this Reservation. There were two deaths during the quarter; one buffalo calf died of infection in one lung, probably pneumonia or an injury; one old buffalo cow that has been in very poor condition, in the North pasture, ever since I came here in 1930, was killed this quarter when she was found to be in a very weakened condition and practically helpless. The skeletons of this cow and calf were prepared and shipped to your office. One buffalo bull was killed the first day of October which had some form of skin infection. Samples of his skin were sent both to your office and to the University of Nebraska at Lincoln, Nebraska, for examination. Dr. Schillinger, of your office, found some form of ring worm present and a form of mite but was not able to ascertain whether or not this mite was scab mite or not as this specimen, upon reaching Washington, was in a very poor condition for examination. Three buffalo were butchered for food purposes, this quarter. One 3 year old buffalo heifer was transferred, alive, to the City of Greenville, South Carolina for exhibition and breeding purposes. This leaves a total of 122 head of buffalo on the Reservation at this time. The buffalo were driven out of the east pasture into the corral enclosure on Sunday December 3 but we were not able to get them into the corrals until the 5th of December. At that time several young animals were cut out and retained in the Pond Pasture for disposal should there be any future orders for live buffalo. One of these animals was the one that was shipped to South Carolina. The buffalo are now all in the North pasture, North of the River, except two old bulls and one calf which I was not able to drive in. The entire herd is in very good flesh and health except one yearling heifer which I believe has had pneumonia and I expect her to die before spring.

Elk -The elk herd, as a whole, looks very good this winter, especially the animals that spent the summer in the heavily wooded area in the south pasture. There were 67 head of elk at the beginning of this quarter. The most of them were in the timber in the new pasture until the first of December when they were driven into the north pasture. Five of these animals were killed during this quarter, for meat purposes. Four of them were in excellent condition, very fat. In fact, they were in the best condition of any elk butchered here in the past four seasons. One of these 5 animals butchered was a young bull that for some unknown reason was in very poor condition. However, his carcass and entrails were examined by a Veterinarian and was found to be suitable for food and will be transferred to the Indian Service during the next quarter as food for the needy Indians. I believe when I am able to secure a new count of the elk there will be several animals added to the present number as births during the past season. I expect to ascertain a correct count of these animals, from the air, as soon as there is snow on the ground and suitable flying weather.

Antelope - There still remain, on the Reservation, 10 antelope and these animals, from all appearances are in a thrifty, healthy condition and I sincerely hope there will be no losses due to adverse weather conditions or other reasons this winter. The pair of fawn, raised, are growing and getting along fine. They come up for their feed regular each day. They are all in their regular pasture north of the Headquarters' Buildings. They are becoming quite tame because of the large number of men from the C. C. C. Camp passing through their pasture going to and from work.

Deer - There are still 5 Deer on the Reservation at this time; one of them a mule Deer buck in the east pasture and 4 of them are the white tail. The white tail buck lost his antlers early this fall. In fact, he has been losing them approximately 20 days earlier each year during the past 3 years. I believe this is because he is getting old. The pair of white tail fawns, raised this summer, are becoming quite tame as they come, with their mother, for their grain each day. The doe is rather thin but otherwise in apparent good health.

Predatory animals and fur bearing animals - As reported in the last quarter, quite a number of coyotes were noticed over the Reservation and during this quarter; they became so numerous on the Reservation they started raiding the Rancher's poultry flocks adjacent to the Reservation. There was so much complaint raised by the Ranchers that I endeavored to control the coyotes as far as my funds and time would permit. I made some poison stations at the most advantageous places on the Reservation and put out poison and since that time we have gotten 10 coyotes, having spent practically no time looking for dead coyotes. I rather believe that a greater number were poisoned and they have not been found, owing to unaffordable time. Mink and skunk are very plentiful over the Reservation. The river and creek banks, this fall before freezing, were covered with mink tracks and one could see

skunks while riding horseback over the Reservation. I have seen no prairie dogs in the Antelope pasture this quarter and rather hope they have been exterminated. Pocket gophers were very busy during the first part of this quarter and are uniformly distributed over the entire Reservation. There are more beaver, along the river through the Reservation, than the supply of willow and other small brush will care for, and they are cutting down and girdling quite a number of the hard wood trees along the river.

Birds - There were quite a number of mallard ducks on the Reservation during this quarter and there still is approximately 2,500 mallards 90 per cent of them males. There has never been the number of ducks on the Reservation at any one time that there was last year. In fact, there has been a gradual decrease on the Reservation since the fall of 1930. A few Golden and Bald Eagles migrated down from the north during this quarter. The buzzards that stayed on the Reservation, during the last quarter, migrated during the early part of this quarter. There is about the usual number of hawks and owls on the Reservation. Quail, prairie chicken, sharp-tail grouse and pheasants are quite plentiful and I believe there are more of them than there was a year ago. A few geese have stopped on the River bordering the west arm of the Preserve, from time to time, but until the land laying west of the river is closed to hunting, the geese will not use this area very much. I rather believe that as soon as this area is closed that there will be quite a number of geese take advantage of the sand bars above the power plant for a resting place.

Reptiles - No venomous snakes were killed during the denning season in the early part of the quarter. Otherwise the reptile life was apparently the same as last fall.

2. Other activities.

1. Grazing - The grazing conditions were better during the past quarter than for the corresponding quarter the past 4 years. The new pasture or east pasture afforded sufficient grazing for the 82 head of buffalo and 45 head of elk that grazed therein during the past summer and the first two-thirds of this quarter. The old pasture, north of the River, made a very good growth and there is sufficient feed to afford the animals a good supply during this winter. I expect to move the herds from the north pasture, into the south pasture, again this next spring as the old pasture should have another summer or two to restore itself from the over-grazed condition it has been in. Hay will have to be fed to the Exhibition herd in the pond pasture whenever snow covers the ground. Grazing in the antelope pasture is very good.

2. Protection - Pastures and other parts of the Reservation have been patrolled from time to time and no indications of any trespassing was found during the quarter. The Fire Prevention was prepared for during the first quarter; water was retained in the barrels in the fire houses over the Reservation during the hazardous season of this quarter.

3. Improvements - I shall list the improvements on the Reservation of the Federal Projects through funds obtained from Public Works Funds, first:

Under F. P. 52 considerable detailed improvements were performed. East chimney on the headquarters house was built higher as it was below the west ridge of the house and caused the stove to smoke when the wind blew from a westerly direction. Work was started on the front porch of the headquarters house for having it screened in. The base of this porch was bricked up the sides to bring the sides to a height where the windows and screens will be built in. Cement sills were constructed, replacing the soldier course of brick above two of the basement windows. These brick were torn loose by throwing fuel into the basement. A hole was made in the brick wall for installing a window in the east end of the Cook room. Cement sills were put in above and below ready for installing this window when it is purchased with other Federal Project material. The slaughter house, headquarters corral, fence, shop and pump house were painted pearl grey trimmed in white. The north door of the Slaughter house was enlarged and reconstructed to enable trucks to get in and out during the butchering season. The gable ends of the Big Red Bran, where the cars are stored, was built out to make the appearance of this building conform with the rest of the headquarters buildings. All windows, doors and corners of this building were trimmed and it is now ready for applying the lap siding and paint. Weather stripping was put in the windows of the headquarters house. Most of the windows of the house were salvaged from the Mess Hall and were so loose that dirt and snow would blow into the house. Another door was made in the barn, for storing cars, and an approach was built for driving into the building. A well constructed tool cupboard was made in the south end of this barn for storing all fence building equipment where it can be kept in tact and under lock.

F. P. 54 - Dams and Wells. 3 large dams were built this quarter; 2 of them on the Creek just west of the corrals and one on Big Beaver Creek about onemile down stream from where the creek runs under the North pasture fence. The upper dam at corrals was constructed 20 feet wide on top which will enable us to use this for a road when traveling to and from the Slaughter house and because of the pond that will be created above this dam the division fence between the antelope pasture and the pond pasture will be placed on top of this dam. The dam on Big Beaver will create a large area of water. This pond should make an excellent resting place for ducks during the spring and especially the fall season.

F. P. 55 - Fire Prevention - Under this project a 600 gallon gasoline storage tank was placed in the ground just west and south of the new shop building. A pump has been purchased for this tank. This will help eliminate the fire hazard we had in the past by storing barrels of gasoline in the various buildings owing to the fact that we had no suitable building for storing gasoline. The old water main and fire hydrants remaining from the old Fire Prevention system, when this Fort was occupied, has been disconnected at a point east of the easternmost building and at a point west of the westernmost building and ditch is being dug for laying water mains from tower and pumping station that will be constructed next quarter, into the water main.

On most of the gates in the Big Game fence the locking system has been changed from a chain around the post and gate to a rod with a hook on one end to catch the end of the gate. This rod passes through a hole in the gate post and the end of the rod that passes through the gate post is flattened out and has holes drilled in it for fastening the padlock. This arrangement makes the gates easier to open and shut, especially during the winter months. A gate was built and installed in the north pasture fence just east of the flood gate on Big Beaver Creek where it crosses under the pasture fence. A temporary road was made from this gate down to the Dam site on Beaver creek. This road will be improved later by C. C. labor. During the last half of this quarter the C. C. Camp performed the following improvements on the Reservation. They built and surfaced with clay a 20' top elevated road leading to the highway on a straight line running west from the south side of the buildings. This road has a wide ditch on both sides and the top is approximately 1 1/2 feet above the ground level on both sides of the road. This will keep the road free from snow. This road is very well constructed and improves the appearance of the place and will last for many years. The ditches were surveyed to insure proper drainage. Some work remains to be done on this road in front of the buildings and will be completed as soon as the frost goes out of the ground next spring. The road leading south to the highway was partially improved and it also will be finished next spring. A cement auto gate was put in at the south entrance to keep live stock out that runs on the highway. Two temporary roads were made down to the wood flats on the south side of the river for cleaning and hauling out all the dead and down timber. A permanent road was made leading from the flat just west of the blow holes in the east pasture down the hill to the south approach where the bridge will be erected over the river. A permanent road was constructed down the hill to the river from the flat just west and North of the Tylor place. This road will enable us to haul the 2 miles of fencing material down to the river edge during the construction of F. P. 49, Interior Game Fence, and this road is so constructed with sufficient drainage and culverts that, with a little repair work, from time to time, it can be used for maintenance of the fences and patrolling. The road leading from Howe place down to the

river was reconstructed and sufficient drainage facilities made to carry the water from the road, making it a permanent road. Work has been started on a road in the north pasture that will go down over the Montgomery flat in a southeasterly direction to where Big Beaver Creek runs into the river. It crosses Big Beaver Creek and will be continued over the flat into Little Beaver and on up little Beaver Creek and also a branch of this road will run north up the ridge between these creeks. Two nice ponds were built on the upper end of the Tylor creek. Salvaged 6" water pipe was used for draining and regulating the water level of these ponds. These ponds should be very suitable for ducks for both resting and feeding because of the moss and water cress that readily grows in this spring water. A very good start has been made toward cleaning up the Antelope pasture. The rock from all the old foundations are being removed for use as rip rap on the dams. The old boiler foundation and basement has been removed. The flues of this boiler being used for constructing auto gates. A few holes have been made west of the headquarters house for transplanting cedar trees for wind breaks. The detail, getting dead wood along the river, has covered about half the territory. A good share of the down timber is beaver cuttings.

4. Public Activities - Twelve beaver were taken during this quarter; 2 of them were sent to the American Museum of Natural History of New York City, New York; 2 of them to the Museum of the University of Nebraska at Lincoln, Nebraska and 5 specimens were mailed to your office and 3 small beaver, caught during the first part of the season, were skinned and stretched; 2 mink and several rats were caught during the taking of the beaver.

5. Miscellaneous Activities - Hay haying operations were more extensive on the Reservation this year. 1225.49 tons were harvested this season @ .25¢ per ton; \$246.07 has been received to date leaving a balance of \$60.35 to be collected. The hay was of a very good quality this year. \$180.00 cash has been received, to date, from the sale of surplus animals, viz. 3 buffalo at \$35.00 per head \$105.00; 3 elk at \$20.00 per head, total \$60.00 and one elk at \$25.00. During this quarter the Coast and Geodetic Survey were running a line north and south through Valentine and I had them establish a bench mark near the northwest corner of the headquarters house and one near the river bank near the School House one-half mile Northwest of the headquarters house known as "Cornell Dam School". These elevations should come in handy when a topographic map is made of the Reservation. 16 tons of coal were secured through co-operation with the Rosebud Indian Reservation at a saving of approximately \$5.50 per ton under local prices. I had a Cabinet Maker, one of the members of the C. C. C. Camp, construct a very nice specimen cabinet for the office; it is 5' high, 6' long and 1' deep. Considerable repair work was done on the Big 3½ ton truck, getting it in shape for

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hauling material in connection with the various Federal Projects. I had a satisfactory lighting system installed on this truck so it can be driven before day light and after dark during the short winter days. A car load of sand and gravel was purchased and stored to be used on Federal Projects. On the 16th of November the Veterans Conservation Corps Camp, E. C. V. #203-SO, arrived at the Reservation and occupied the new set of buildings that was constructed for them, on the old Parade ground just northeast of the Headquarters buildings, during the latter part of October and the first part of November. On Sunday November 19th I looked the Reservation over from an aeroplane and was able to get an accurate check on the Buffalo on the Reservation but was unable to see any elk. An altitude of 2000 feet had to be maintained because of the air conditions and at that altitude, it was impossible to see the elk as their colors blended with the dead grass and timber. The Reservation looked very pretty from the air and the site of the old Fort buildings was very distinguishable. The cement fence anchor blocks for the Big Game fences were made during this quarter and are ready for use. Mr. Knowles, Leader Rodent Control, was here during November and brought with him a preparation for painting the young trees to protect them from rodents and rabbits. Mr. Knowles and I inspected the pocket gopher control experiment plot, viz: the west half of the south pasture. This was treated for pocket gophers early last spring and it seemed the results were very good as we found very few indications of gophers working over this area and plans were made to have some extensive work done in pocket gopher control next spring by C. C. C. labor. All the equipment for building Big Game Fence, stretchers, stretcher bars, chains, shovels, etc. have been repaired except some parts that have been ordered for repairing the jacks. All this equipment is stored and ready for use.

Forage and feed - Not much was raised on the Reservation this season because of the drought and hot weather. Six stacks of hay were put up for feeding of saddle horses and animals in the exhibition pasture, during the winter. A large stack of hay was cut on the south portion of the Reservation and stacked in the Antelope pasture for the Antelope to feed on during the winter. They readily eat this weedy hay from the south portion of the Reservation while they never touch the stacks of wheat grass and blue grass stacked in their pasture.

Very truly yours,

Asst. Reservation Protector.