

NARRATIVE REPORT ROUTING SLIP

REFUGE FORT PECK PERIOD January - April 1962

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**FORT PECK GAME RANGE
Narrative Report**

January - April 1962

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WAE PERSONNEL

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FORT PECK GAME RANGE
Lewistown, Montana

NARRATIVE REPORT
January - April 1962

I. GENERAL

A. Weather Conditions.

Temperatures were below normal for the period and inclined to be more extreme on the west part of the game range. Minimum temperatures at Sipary Ann station reached a low of -43° on January 12 with the maximum hovering around 0° or below on many days until mid-March. Several instances were known where isolated ranchers had to leave pickups and tractors running all night since the intense cold would have made starting prohibitive if they did not take these precautions.

The intense cold was hard on game and stock. However, the absence of deep snow resulted in a minimum loss of stock and with no known loss of game.

The following tables are from the station maintained at the Sipary Ann station and the Weather Bureau at Fort Peck.

	Snowfall			Precipitation			Temperature	
	1962	1961	1960	1962	1961	1960	Max.	Min.
January	4.5"	2.5"	8.0"	.38	.15	.51	-58	-43
February	-	-	8.8	.37	.41	.60	69	-37
March	8.5	4.0	2.7	.48	.37	.31	69	-21
April	-	0.5	4.9	.54	1.61	1.19	89	7
Totals	10.0"	7.0"	24.4"	1.77	2.54	2.61	89 H	-43 L

	Precipitation				Temperature	
	1962	1961	1960	Normal*	Max.	Min.
January	0.18	0.04	0.56	0.40	51	-24
February	.34	.35	.17	.34	56	-38
March	.70	.15	.14	.60	64	-24
April	.02	.62	1.57	.96	86	21
Totals	1.24	1.16	2.44	2.30	86 H	-38 L

*30-yr normal precipitation from U.S. Weather Bureau, Glasgow, Montana.

Precipitation records have shown a continual decrease during the past three years. In general, the ground moisture is at a very critical state with a small amount of moisture in the top soil and little or no subsoil moisture.

The east end of the game range was fortunate to receive enough snow to fill most of the reservoirs by the end of March. The month of April produced only .02 of moisture with dry winds that did much to rob the values of the small amount of surface soil moisture. The first three months of the period average 91% of normal. However, the dry month of April brought the precipitation down to only 54% of normal.

B. Habitat Conditions.

Water conditions may be termed as generally critical with prospects for this next growing season hinged solely on the rainfall during the next two months.

The river has remained at an all-time low all spring. The reservoirs on the west unit are in poor shape with those on the south side of the river receiving a little more runoff water than those on the north side. This was due to a little more snow and the fact that some of the reservoirs are located in drainages which receive runoff from the foothills of the Judith Mountains. Most of the reservoirs on the north side caught a little water but with few exceptions it will be insufficient to last throughout the summer.

The east unit is in slightly better shape since runoff has filled reservoirs and some potholes. If dry conditions prevail most of the ponding areas could be dry by August.

The reservoir levels declined steadily during the period approaching a low since the filling of the reservoir. The level reached a 2190.2 on March 15 at which time the Corps of Engineers shut down the outflow to 3,000 cfs. They have hopes of bringing the level of the lake up to 2210 by mid-July.

The ice on the river went out on April 3. The dredge cuts did not thaw until April 13 and the reservoir did not shed its ice until April 21. The ice went out without any serious jams or flooding. It first melted out down the middle and the shore ice moved out without incident.

The following table is from the records maintained by the Corps of Engineers:

FORT PECK RESERVOIR LEVELS					
		1962	1961	1960	1959
January	1	2195.4	2212.3	2209.9	2196.4
	15	94.4	11.8	09.6	96.1
February	1	93.0	11.4	09.2	96.0
	15	92.3	11.4	09.3	95.8
March	1	91.0	11.2	09.2	95.6
	15	90.2	10.8	08.8	97.9
April	1	90.7	10.2	11.2	2200.8
	15	90.3	09.6	11.9	00.8
	30	2190.7	2209.0	2212.8	2200.9

2. Food and Cover.

Food and cover were adequate on most areas of the game range but the effects of two years of drouth conditions are becoming more pronounced.

On the east unit serious inroads on preferred browse types have been made in several areas by winter grazing cattle. On Harper's Ridge the silver sage has been used by cattle down to the third year's growth during the past winter. Several instances of ridge tops having suffered damage from wind erosion have occurred through lack of ground cover. For the most part, these areas are interspersed with private lands making effective control impossible.

Cover is adequate for all game along the river bottom lands but scarce in the "breaks" and out on top where cattle have made heavy use of the range.

Most grasses started growing during the forepart of April but were showing the effects of the lack of moisture by the end of the period.

In most instances the cattle were turned out on the range on May 1.

All refuge grain fields were completely utilized at the end of the period by waterfowl, upland game birds and big game. The winter wheat fields of sharecroppers and refuge-farmed areas furnished food for many of the migrating and nesting geese during the spring. The outlying grain fields were also totally utilized by spring migrants.

The population of mallards that wintered in the Duck Creek required supplemental feeding. The refuge-farmed food plots in the east unit provided little food this year due to the drouth. Many ranchers in that area failed to harvest because of crop failures. This unharvested grain provided food for the waterfowl until the first part of January when most grain was gone and the rest covered by snow. This feeding program was started on January 9 and terminated on March 20. This program is carried out to prevent feed lot depredation in the Milk River Valley.

Table I gives supplemental feeding data for the 1962 winter period.

Table I 1962 Waterfowl Feeding Program - Duck Creek

	<u>Feed Barley & Wheat (bushels)</u>
January	496
February	500
March	<u>310</u>
Total	<u>1306 bu.</u>

II. WILDLIFE

A. Migratory Birds.

1. Waterfowl.

During the period the wintering mallard population fluctuated from 3,000 to 7,000 birds, depending on weather conditions. Heaviest use occurred in Duck Creek during the coldest spells and deepest snow cover. At other times the birds would disperse over the countryside in search of food and other open water. The wintering populations using Duck Creek were permanently dispersed the week of March 18-24.

Of interest was a female wood duck that resided in Duck Creek the first two weeks of January and then disappeared. Two hybrid ducks also wintered in Duck Creek; one a male mallard-pintail cross and the other was not identified but believed to be a cross between a wild mallard and a tame duck.

The first migrants were observed on March 17 when Canada geese were noted at Sipary Ann. They were followed by pintails on the 19th; mallards on the 21st; gadwall, baldpate, and scaup on the 22nd; and redheads, shoveler and teal following within the next two weeks. Migrants first appeared in the east unit on March 21 when Canada geese, pintail, widgeon and redhead were observed. Canada goose population reached a peak at Fort Peck during the week of March 18-24; pintail March 25-31; Redhead March 25-31; Lesser scaup April 1-7; Shoveler April 8-14; and Gadwall April 15-21. Widgeon, Green-winged Teal, Bufflehead and Canvasback all had lesser and more insignificant peaks during the last of March and early April.

At Sipary Ann the Canada goose population buildup continued until mid-April when a peak of 1,200 birds were recorded. Many pairs have been observed along the river at the end of the period. Prospects for a good nesting year are encouraging. The migrating geese made good use of the winter wheat and grain fields as well as the alfalfa fields.

2. Captive Geese.

As in the past, the captive geese started showing signs of mating during early February and were paired off and setting up their territories by mid-March. The first eggs laid were noted during late March. Nesting picked up during early April and by mid-April most of the geese were nesting. During late April the nests were counted and 17 were noted with ground nests and 15 nesting on the hay bales. On April 30 the first brood hatched with 5 young. This was the same date the first brood hatched last year.

The nesting of the captive flock is usually at least two weeks earlier than nesting by the wild birds on the outside. One nest in the field south of the station was observed on April 18. This is believed to be a bird raised here as it has a band although we have never been able to read the number. The bird is also noticeably gentle and is not disturbed much when approached by man. No young geese have been observed along the river at the end of the period.

We do not attempt to count the eggs before they are hatched as we feel any such interference may discourage nesting.

A commercial egg-laying pellet was fed the geese along with the wheat and barley from mid-February. We will not know if it helps the average brood size until the next report. Feathers of two geese were found in the trees adjacent to the goose pen. This was apparently the results of predation by bobcats. A trap line was maintained along the fence throughout the winter but apparently one of the predators got over the fence. Six bobcats were caught in traps around the fence during the period.

3. Other Waterbirds.

The Great blue heron first appeared at Fort Peck on March 19 but was not observed on the west until March 26. At Fort Peck California gulls were seen on March 27; Sandhill crane March 27; double-crested cormorant and common loon April 8; White pelican April 14; and Franklin's gulls April 20. On the west unit the Great blue heron was not observed until March 26; killdeer were also observed on this date. Ring-billed gulls were observed on March 28. The white pelican is usually observed about this same time but put off its appearance until April 27 when 250 were noted flying up the Missouri River. One mountain plover was noted on April 27.

For the shorebirds, long-billed curlew appeared on the east unit April 18 and yellow-legs on April 30--just under the wire for the period report.

4. Mourning Doves.

The first two doves were sighted on the game range on April 16. At lewistown headquarters bluebirds were sighted March 21; crows April 2; and meadowlarks on April 4.

B. Upland Game Birds.

In spite of the cold weather during much of the period we had comparatively little snow so our upland game birds came through the winter with no notable losses.

On the west unit sharp-tailed grouse populations remain low and from all indications will need several years of above-normal production to reach a desirable population.

On the east unit the sharp-tail population remains extremely low. During April observations were again made on the sharp-tail dance grounds on a route established in 1956. At that time this route had 11 dance grounds averaging 17 birds per ground. This spring none of these ground were active and the route had to be extended to include a dance ground found this year for the first time. This ground had 8 birds on it. This drastic decline in the sharp-tail grouse population can be attributed to three factors:

1. Continued heavy hunting pressure on a rapidly declining population.
2. Continued heavy use of the area by livestock.
3. Drouth conditions that have prevailed during the past few years.

In general, the sage grouse populations are static though low as compared to the early 1950's. Of the two dance grounds for sage grouse on the route, one remained static and the other has shown a decided increase. That ground showing the increase is in an area that had very light hunting pressure last fall due to its remoteness.

There was some loss of grouse throughout the winter to eagles.

Table II. Native Prairie Grouse Strutting Grounds Trend
McCone County Route - 1958, 1959, 1960, 1961 & 1962

Grounds		Cocks/Grounds*					Remarks
Designation	Species	1962	1961	1960	1959	1958	
MST-1	Sharptail	0	2	2	8	11	Grounds abandoned 1962.
MST-2	"	0	0	0	0	1	Gr. abandoned after 1958
MST-3	"	0	0	0	3	-	" " " 1959
MST-4	"	0	1	2	4	9	" " " 1961
MST-5	"	0	0	0	0	3	" " " 1958
MST-6	"	8	-	-	-	-	Route extended to include this ground in 1962
MSG-1	Sage grouse	12	12	11	12	-	Not observed in 1958
MSG-2	" "	26	17	9	10	-	" " " "

*Observations during early morning hours between April 20 and March 1. Recorded number of males is the greatest number observed on the grounds at one time.

Pheasant populations survived the hunting season last fall and winter with no apparent loss. Tract 19A and Sipary Ann headquarters were the favorite spots for pheasants. It was common to see as many as 50 birds at Sipary Ann and 100 birds at 19A during the winter.

Pheasant numbers in the Fort Peck area appear to be up this spring as compared to last and if nesting conditions are good we should have an excellent crop of young this year.

Hungarian partridge appear to be about the same as last year on the east unit. The west unit has had a considerable decrease and are only seen occasionally. We are unable to explain the decline in populations but it is not believed to be due to lack of food or cover.

Merriam's Turkey.

The turkeys were not as fortunate as the pheasants during the hunting season and we had a smaller wintering population than at any time since they were first introduced. We have observed only a total of 18 birds on the west unit since the fall hunting season. Nine turkeys were observed on several occasions at tract 17 and across the Missouri River at Rocky Point. These are believed to be the same 9 turkeys. Eight birds (6 hens and 2 toms) were observed at Sipary Ann during much of the winter. However, late in the winter one of the toms quit coming in to feed and it is believed he was taken by some predator. One turkey wintered near Irish's but left during early spring and has not been seen since. We are extremely dubious as to the future of this year's production but will not have nesting data until the end of the next period.

The tom in the Sipary Ann flock was an immature bird and did not show the usual signs of courtship and mating, at least while being observed near the station. The lack of courtship display is not encouraging but it is possible he was aware of no competition. We hope this is the case.

No nests have been observed but the birds quit coming into the feeding station during late April which has been the normal pattern in the past when they started nesting.

C. Big-Game Animals.

1. Mule Deer.

Contrary to some reports of winter-killed deer, we have been unable to find any losses that could be identified as winter kills. In fact, all of our big game survived without apparent loss in spite of the poorer than usual condition of the range. This condition was brought about because of the past two or three drouth years.

Plant growth during the past growing season was poor. This is not believed to be caused by over-deer populations but rather drouth conditions.

Deer were conspicuous by their absence in the areas on the north side from the highway to 7-Mile Creek. In the past, many deer were observed coming into the bottoms during the early spring. However, few deer were noted following this pattern this year.

The deer numbers on the east unit were low this last period. No sizable herds were observed during the past winter. The game range in Valley County contained large areas that were completely void of deer. The most noticeable void was the area from 6th Point west to Harper's Ridge. The deer that were congregated on Harper's Ridge last fall and early winter were replaced by a large herd of wintering cattle. On talking to the foreman of this cow outfit he said that in a day's ride they would see only 3 or 4 deer whereas a few years ago a person could see as high as 75 deer in a day.

The largest concentration of deer observed this last winter were seen on the Pines Point where about 25 head, all in prime condition, were observed. This is a recreation area that is fenced from use by cattle. It might be added that what few deer were observed outside the area all appeared to be in good condition.

2. White-tail Deer.

These deer are relatively abundant along the river bottoms and appear to be in good condition after a long cold winter.

3. Elk.

Another winter relatively free of snow has made it impossible to make our usual winter aerial counts on elk so our estimates are taken from ground observations. The elk herd has survived the winter with no winter loss being noted. Elk were observed in the area from Wilder Coulee east to Beauchamp Creek several times during the period. The herd on the south side in the Carrol Coulee and creek area has been counted on different occasions and most counts place their numbers at or near 80 head. This is approximately the same number as a year ago but at least 8 animals were illegally killed during the hunting season. The elk observed have been in good condition.

Due to drouth and heavy use by cattle, the elk in Valley County have changed their winter use pattern somewhat. On 7th and 8th Points where they have normally wintered in previous years, there is no sign of elk. There has been noted a westward movement of the elk in this area. This winter about 24 elk wintered on 4th Point which is just east of the Pines Point. The highest number ever recorded before on 4th Point was 15 head last fall in October. How far westward the elk herd have moved cannot be determined until

a plane can be had to fly out the rough country to the west. At the very end of this period a few cow elk had begun to trickle into 6th Point which is a favorite calving ground for elk.

4. Antelope.

Antelope were observed in their usual numbers. They wintered well with no known mortality.

5. Bighorn Sheep.

One bighorn sheep was lost during the winter from unknown causes. It was a sheep which had been noted in poor condition the previous period and was not found soon enough to determine the cause of death. The remaining sheep do not have the glossy coat normal for this season of the year. There does not seem to be any disease or anything serious as no ill effects can be noted in their actions. By the end of the period the sheep were beginning to scatter out into small groups. The rams bunched up near the crest of the hill and the ewes and lambs were usually observed in small groups along the slopes facing the river. This is the normal spring behavior.

Food appeared to be abundant although the range is beginning to show some effects of the continued drouth. The sheep used agricultural crops periodically throughout the period.

No lambs were observed before the end of the period.

The water reservoirs received small amounts of runoff and will furnish water for game until early summer. This is of benefit to the animals as the heavy lactating ewes are not forced to make the long trip to the bottom for water. They will undoubtedly use these reservoirs and two seeps or springs when the lambs are small.

D. Fur Animals, Predators, Rodents, and other Mammals.

Predator populations were generally higher during the period. Normal control operations were necessary around the captive goose flock. Six bobcat, 3 raccoon, and about 15 skunks were removed.

Red fox showed a definite increase this winter in the Fort Peck area and caused considerable damage to several farmers' chicken flocks.

No mountain lions were reported this period. Predator and Rodent Control men spent several days flying the area west of the bridge to the mouth of the Judith River but failed to locate any signs of the large "cat" which had been reported on several occasions in that area.

Porcupine populations are still high and are causing damage to pine trees by stripping the bark.

The prairie dog town overlooking Timber Creek has doubled its size and is about one square mile in size. During the brief mild period in February this dog town was active.

Cottontail populations were up slightly. Many patches of rabbit fur were noted in the brushy bottoms with telltale bobcat or great horned owls' signs as evidence of their prey.

E. Hawks, Eagles, Owls, Crows, Ravens, and Magpies.

Several bald eagles were again observed west of the bridge to the power plant ferry. It is believed they nest in this area, however, nests have not been located to this date. One pair stayed in the vicinity of tract 19A and two pair were regularly observed in the UL Bend. Three of these eagles were regularly seen in the Fort Peck area.

Golden eagles, great horned owls, magpies and American rough-legged hawks and one short-eared owl were present the entire period.

During early spring a report was received from a rancher that magpies were picking and eating new brands and the backs of cattle.

The first crow was observed March 19; marsh hawk March 10; sparrow hawk April 10; and red-tail and Swainson's hawk about April 20.

Of special interest were two gyrfalcons of the white phase seen in the Duck Creek area on January 6 and last observed on March 10. These birds stayed in the vicinity all the time feeding on wintering mallards.

F. Other Birds.

During mid-January about 50 Bohemian waxwings established residence at Sipary Ann station for about six weeks. They fed on the berries on the bushes near the slough from the artesian well. These birds were interspersed with the normal concentration of Cedar waxwings in the river bottom lands in the Fort Peck area.

The large flocks of horned larks were again present this winter especially along the highways foraging on the road shoulders where the snow had been plowed off. An albino lark was observed along the highway between Glasgow and Fort Peck.

Redheaded blackbirds arrived March 25 with the Brewers following on March 28 and the Yellow-headed arriving April 10.

A flock of robins were observed at Fort Peck during the mild spell during February but disappeared until the 20th of March.

The first meadowlark was noted at Sipary Ann on April 2 which is quite late. Bluebirds were noted at this station on March 21.

Says Phoebe arrived in the Fort Peck area on April 19. No warblers had been recorded in that area by the end of the period.

G. Fish.

On the east unit ice fishing was excellent in the Rock Creek area for ling, however, fishing pressure was light. During April some excellent trout were taken in the rapids below the dam with some of the trout going up to 5 pounds. The lake is still a little cold for good fishing but it is improving.

On the river there was no fishing until the ice went out and then many fishermen were waiting with set lines. Nice catches of catfish, pike, and trout were taken during the first few days after the ice went out. One fisherman took a 15 pound and a 17 pound catfish on a set line in one setting. This provided quite a battle. Several other large catfish have been reported. Fishing pressure continued to increase during the remainder of the period.

H. Reptiles.

No observations to report.

I. Disease.

No signs of disease were observed during the period.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development.

All employees were quite busy throughout the period with field work and routine maintenance when weather and operating conditions permitted. Among those items requiring more time and work were complete renovation and rebuilding the horse trailer at Fort Peck; scraped, serviced and painted the 21' boat; hauled surplus radio towers from Great Falls; leveled hill and poured foundation for tower at Sipary Ann. Hauled penalty grain from elevators scattered over eastern and central Montana; halter broke the yearling colt; leveled and planted yards at Sipary Ann.

B. Plantings.

1. Aquatics and Marsh Plants.

None to report.

2. Trees and Shrubs.

None planted during period.

3. Upland Herbaceous Plants.

Two of the burns of 1961 were planted by the BLM during January 1962. The following mixture of seed was sown by airplane at the rate of 8 pounds per acre.

Slender wheat grass	3.0	lbs.
Green needle "	1.0	"
Western wheat "	1.86	"
Crested wheat "	0.14	"
Yellow sweet clover	2.00	"

This mixture was sown on 258 acres of Fire 61-3 (Sand Coulee) at a cost of \$1354.25 and on 80 acres of Fire 61-9 (Hell in August) at a cost of \$425.71.

4. Cultivated Crops.

Farming was started on the west unit at tract 646 on April 16. Forty-two acres of barley and 8 acres of millet were seeded at this tract. At tract 28A 23 acres of barley were seeded and also 52 acres of barley at tract 34. Fifty acres of ground was disked at Sipary Ann and the ground is ready for seeding. Some barley will be seeded at tracts 19A and 17 shortly after the beginning of the next period.

Most of the sharecroppers have completed the seeding of spring grains. A complete list will be included in the next narrative.

The winter wheat seeded by refuge personnel and sharecroppers has proved to be a good crop and received heavy use by migrating geese. In most instances it survived the winter without appreciable loss. Some fields have small spots that winter-killed. The planting of winter wheat also fits into the refuge work schedule nicely as it helps alleviate part of the heavy work schedule in the spring. Prospects for a crop are questionable because the game range is outside the winter wheat belt.

The alfalfa fields are showing effects of the drouth and the non-irrigated fields have lost over 50% of the stand. Some of the fields which have received two or three irrigations are starting nicely and should produce good yields.

Farming on the east unit got started on April 18 and by April 30 all seeding and the first round on summer fallowing was completed. The following is a summation of refuge-farmed tracts planted to cultivated crops during the period.

1. Tract 68-D (dry land crops)
 - 20 acres reseeded to barley after winter wheat failed.
 - 20 acres summer fallowed.

2. Tract 70-D, lower (dry land crops)
55 acres seeded to barley.
3. Tracts 70-D & 71-D, upper (dry land)
39 acres seeded to barley.
52 acres fallowed (included 19 acres of 71-D
that winter wheat failed).

The sharecropped allotments were mostly seeded except for the irrigated tracts which will be farmed in May.

C. Collections and Receipts.

None this period.

D. Control of Vegetation.

The only controls practiced during the period were to disk before planting.

E. Planned Burning.

Approximately 25 acres of Russian knapweed was burned on tracts sharecropped by Frank Lock. An excellent burn removed all the weeds. At this time it is too early to judge the results.

F. Fires.

None.

IV. RESOURCE MANAGEMENT

A. Grazing.

In the west unit the warm days during mid-April started range grasses and by the end of the period they had made good growth. They started just in time to get the jump on the grazing season in the areas where the turnout date is May 1. In the grazing districts where cattle were turned out April 1, the grass will no doubt have trouble keeping ahead of the grazing pressure. In fact, the first part of the month cattle were forced to graze the old grasses. As previously mentioned, the soil contains enough surface moisture to give the grass a good start but was showing the effects of lack of moisture by the end of the period.

More forbs were noted on the ranges this year and sweet clover was observed starting in many areas. The increase in forbs is probably due to more surface moisture than in the year 1961. Heavier grazing pressure of last year also left less grass in most grazing districts.

The grazing season outlook is very discouraging at the end of the period and it is felt the month of May will be the critical month in determining range conditions for the coming growing season.

A number of cattle were known to have starved to death in both the McArthur and Rankin allotments this period. Both users damaged rangelands to a considerable extent by this type of winter use. There are no boundary fences that can control livestock on winter use permits.

In the east end of the game range the dry April experienced this period could set back any growth of range grass that was started if no rains fall in May and June. The only bright spot this year is that the reservoirs have more water in them than last year at this time. Unless rains develop in the next two months many ranchers will have to cut back on their herds. Some are planning this now.

B. Haying.

None this period.

C. Fur Harvest.

During the regular state trapping season a permit, No. T-3281, to trap beaver was issued to Mr. Merl Nelson of Nashua. The game range land to be trapped consisted of two areas:

1. The shore line and adjacent waters of the Fort Peck Reservoir from Duck Creek down to the face of the dam;
2. From Duck Creek below the dam downstream to the public boat launching site.

The number of animals to be taken on area 1 was 15 and on area 2, 10.

The purpose of this trapping program on beaver was to cut down on depredation complaints by the Corps of Engineers and other users. This last summer and early fall the people around the marina complained of beaver eating the styrofoam from under the floats and docks. As the styrofoam is made from cellulose it does have some nutritional value for beaver. Live trapping was tried by the state game warden but proved unsuccessful. In the early fall the Corps of Engineers complained of beaver cutting down trees in the vicinity of the swimming pool. As a result of these complaints a trapping program was instigated whereby the beaver could be removed from the trouble areas.

Mr. Nelson took the limit of 10 on area 2 and 5 on area 1 for a total of 15 beaver. All trapping was done through holes in the ice. At breakup time this spring no trapping was attempted because

of the lack of beaver signs on the two areas. The permit called for the trapper to receive 100% of the pelts and carcasses and the Service's share was none.

The following is a list of the animals taken.

<u>Sex</u>	<u>Size (diameter)</u>	<u>Sex</u>	<u>Size (diameter)</u>
M	76"	M	61"
F	74"	F	59"
M	71"	M	52"
F	69"	M	47"
M	68"	M	44"
F	66"	F	42"
F	64"	F	41"
F	63"		

D. Timber Removal.

None

E. Commercial Fishing.

This winter commercial fishermen attempted to use gill nets through a hole in the ice for the purpose of catching buffalo. The results of this type of fishing in the Rock Creek area was poor and after two fish were caught the operation was suspended.

F. Other Uses.

None.

V. FIELD INVESTIGATION OR APPLIED RESEARCH

A. Progress Report.

1. Waterfowl Banding.

The trapping and banding of a portion of the wintering mallard population was again undertaken at Duck Creek below the Fort Peck Dam. During the period of February 12 to March 9 some 134 mallards were weighed and banded. The weighing of the birds was to ascertain body condition as a check on the supplemental feeding program. Generally the birds did well throughout the winter with males going up to 3 lb. 8 oz. and females up to 2 lb. 14 oz.

It was noted during the trapping operation that there were a number of young male birds of the year that still had much of the juvenile plumage left. These birds must not have been hatched earlier than the last of August. This particular age class of mallard did not winter well as all that went through the trap were in very poor flesh and were small of frame. Many of this class were picked off

by hawks and owls while others just died due to their weakened condition. It seems that this class of bird did not get a good enough start before the rigors of winter set in.

Table III gives trapping and banding data for this period.

Table III 1962 Winter Mallard Banding, Duck Creek		
Number trapped		201
% Males	68%	
% Females	32%	
Number banded		134
% Males	67%	
% Females	33%	
Number of local and foreign retraps		4
% retraps	2%	

2. Browse Utilization and Condition Survey.

The Bureau of Land Management, State Fish & Game, Fish & Wildlife cooperative browse transects were read during the spring. All browse showed very little leader growth from the last growing season. On the Rhus trilobata (skunkbrush) and Prunus virginianus (chokecherry) most of the leader growth was less than two inches. The Chrysothamnos nonseosus (rabbit-brush) showed a little more growth.

All browse on the north side was used less than the browse on the south side. The short leader growth did not provide much nutrition so more leaders were clipped than a year ago. With another reduction in the deer herd last year the browse should have a chance to improve considerably when we get a normal moisture year.

VI. PUBLIC RELATIONS

A. Recreational Uses.

Due to cold weather recreational use was confined to a few ice fishermen on the east unit. During the last two weeks of the period bank fishermen and a few boaters began to operate.

B. Refuge Visitors.

Official visitors at the Lewistown headquarters during the period included the following.

- 1/17 Dale A. Dunn, Range Manager, & Robert V. Carruthers, Forester, both of BLM, Lewistown. Range reseeding.
- 1/18 Rex ZoBell, District Manager, & Ken Satherfield, BLM, Lewistown. Range reseeding.
- 1/24 E. E. Seyler, Asst. District Agent, Arnold B. Fryer, Mammal Control Agent, Nick Lafrantz, Supervisor, BSWF. Predatory animal control operations.

- 2/12 Ed J. Skibby, Commissioner, State Fish & Game, Lewistown. Cooperation and mutual problems.
- 2/16 M. J. Rognrud, District Manager, Great Falls, Pete Quiring, Warden, Lewistown, State Fish & Game. Deer study enclosures.
- 2/16 Elihu D. Berg, Biologist, Missouri River Basin Studies, Billings. Information re: dam building on the Missouri River.
- 3/ 6 Rex S. ZoBell, District Manager, BLM, Lewistown. Grazing problems.
- 3/ 9 Wallace Irgens, U.S. Weather Bureau, Helena. Check weather station.
- 3/20 E. E. Seyler, Asst. District Agent, BSWF, Billings. Predator control operations.
- 3/21 Leon A. Littlefield & Marvin R. Kaschke, Asst. Refuge Managers, BSWF. Administration detail.
- 3/21 M. J. Rognrud, District Manager, State Fish & Game, Great Falls. Mutual problems.
- 3/27 Patricia George, Fergus Co. Extension Agent, Lewistown. Lectures for 4-H Camp.
- 4/18 Cy Otterman, Trapper, FWS, Grass Range. Predator control.
- 4/30 Watson Beed, Biologist, BSWF, Moiese. Wetlands appraisal.

Sipary Ann Game Station.

- 1/11 C. W. Rader, Manager, REA Electric Coop, Lewistown. Check on possible location for REA line.
- 1/11 Lloyd Ramelli, Asst. Refuge Manager, Lewistown. Assisting REA men in locating line.
- 2/16 Chester Conard & Frank Barnes, Acting & Asst. District Supervisors, Malta BLM. Range inspection and discussion of range problems.
- 2/24 Jim Reeves, Warden, State Fish & Game. Discuss deer and elk seasons.
- 3/10-13 Dale Sandstrom, Maintenceman, Fort Peck. Hauling surplus grain.
- 3/19 Leon Littlefield, Asst. Refuge Manager, Fort Peck. Picked up tilt-a-bed trailer.

- 4/ 5 Personnel from BLM (9) and State Fish & Game (5).
Attending browse training school.
- 4/ 6-7 Lloyd Ramelli, BSFW, Pete Quiring, Warden, State Fish
& Game. Beaver poaching violations.
- 4/ 7 Dale Sandstrom, Maintenceman, Fort Peck. Brought
surplus.
- 4/25 Chester Conard, Frank Barnes, A. K. Majorowicz & Brill
Hershi, all of BLM. Annual range inspection.
- 4/ 1-30 Robert Whartman, Maynard Justice, Arthur Baum, Corps
of Engineers. Surveying dam sites.

Fort Peck Sub-Headquarters.

- 1/16 Gene Kusmaul, Corps of Engineers. Taking duck pictures.
- 1/29 Cliff Hill, State Fish Biologist, Access to game range.
- 2/ 7 Don Burke, rancher, Timber Creek. Proposed fence in
Wagon Coulee.
- 2/26 State Game Warden Buck Holt. Courtesy call.
- 3/ 6 Frank Barnes, BLM, Malta. Range development and
management plan.
- 3/13 State Game Warden Buck Holt. Discuss winter grazing
on Harper's Ridge.
- 3/15 State Game Biologist Dick Trueblood. Elk and deer
condition; dance ground counts.
- 3/26 Don Beckman, Corps of Engineers. Interagency Council
Meetong; surplus Butler building.
- 4/ 9 State Warden Buck Holt. Crippled goose.
- 4/13 Asst. Refuge Manager Ramelli, BSFW, Lewistown. Inspection.
- 4/19-20 State Game Biologist Dick Trueblood. Browse transects.
- 4/26 Chester, Conard, Frank Barnes & Al Majors, BLM, Malta.
Range inspection.
- 4/30 Area Engineer James King, Corps of Engineers. Surplus
Corps housing.

C. Refuge Participation.

- 1/ 8 Asst. Manager Ramelli gave a slide talk on Fort Peck Game Range to the Men's Club of the local Lutheran Church.
- 1/15 Manager Staunton, Asst. Managers Ramelli & Kaschke, and Refuge Clerk Wicks attended budget and administration conference conducted by regional office at Great Falls.
- 1/18 Asst. Manager Ramelli attended County ASC Meeting at Lewistown. Answered questions concerning wildlife in various farming practices.
- 1/31 Manager Staunton & Asst. Manager Kaschke met with State Fish & Game Department at Helena regarding deer seasons and regulations.
- 1/31 Asst. Manager Ramelli gave 45-minute slide and talk program to Moore Women's Club.
- 2/ 7 Manager Staunton attended BLM State Advisory Board Meeting at Billings.
- 3/ 1 Manager Staunton, Asst. Managers Ramelli & Kaschke attended Central Montana Sportsmen's Meeting at Lewistown.
- 3/ 8 Asst. Manager Ramelli judge zoology exhibits at Fergus County High School Science Fair.
- 3/10 Manager Staunton attended Montana Outfitters and Guides Association Meeting. Gave talk on role of game range in recreation.
- 3/24 Asst. Manager Ramelli judged high school science exhibits at Denton.
- 4/12 Asst. Manager Ramelli attended Fort Peck Reservoir Inter-agency Committee Meeting at Jordan. Answered questions.
- 4/14 Manager Staunton gave talk to the McCone County Historical Society on the history of Missouri River steamboat from Fort Union to Fort Benton.
- 4/18-21 Manager Staunton attended Operations & Planning Meeting in Portland, Oregon.
- 4/27-28 Manager Staunton attended meeting of northwest section of Wildlife Society at Missoula.
- 3/ 8 Asst. Manager Kaschke assisted judging Junior High Science Fair at Lewistown.

- 3/26 Asst. Manager Kaschke showed Service film "Antelope Management" to 23 Roy Boy Scouts and leaders.
- 3/27 Asst. Manager Kaschke & Maintenance Foreman Jones showed film "Antelope Management" to Rock Creek school children and neighbors.
- 4/23 Asst. Manager Kaschke showed Service film "Grass and Brush Fires" to 15 Boy Scouts at Roy.
- 4/25 Asst. Manager Kaschke & Maintenance Foreman Jones showed "Grass and Brush Fires" to Rock Creek school children and neighbors.
- 4/28 Asst. Manager Kaschke took a load of Roy High School Science Club members to Black Butte for a field trip.
- 4/ 5 Asst. Manager Littlefield gave a talk before the Fort Peck Committee on Natural Resources in Jordan on the Wilderness Bill.
- 4/12 Asst. Manager Littlefield attended the Interagency Council Meeting in Jordan.

D. Hunting.

None this period.

E. Violations.

One beaver poacher was apprehended with the combined efforts of state and refuge personnel.

- 4/ 6 Howard Campbell, Saco, Montana. Charged with trapping beaver on federal refuge without proper permit. Apprehended by Managers Ramelli, Kaschke, Foreman Jones & State Game Warden Quiring. Fined \$27.50.

VII. OTHER ITEMS

A. Items of Interest.

We are quite proud of our continued SAFETY record. As of April 30 we had a total of 1,845 accident-free days.

B. Photographs.

The photographs at the end of this report were taken by refuge personnel during routine duties.

Respectfully submitted,


Refuge Manager

Maes

21

Date Completed: May 25, 1962

Approved:

Richard E. Griffith JUN 11 1962
Chief, Division of Wildlife

W A T E R F O W L

REFUGE Fort Peck Game Range

MONTHS OF January TO April, 1962

(1) Species	(2) Weeks of reporting period									
	12/31-1/6: 1	1/7-13 2	1/14-20 3	1/21-27 4	1/28-2/3 5	2/4-10 6	2/11-17 7	2/18-24 8	2/25-3/3 9	3/4-10 10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	125	130	130	130	130	130	130	130	130	130
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other Total Geese	125	130	130	130	130	130	130	130	130	130
Ducks:										
Mallard	3,500	5,000	5,000	6,000	4,000	7,000	3,000	4,500	5,500	4,500
Black										
Gadwall										
Baldpate										
Pintail	5	5	5	5	5	4	4	4	4	4
Green-winged teal	1	1	1	1	1	1	1	1	1	1
Blue-winged teal										
Cinnamon teal										
Shoveler										
Wood	1	1								
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye	50	50	50	50	50	50	50	50	50	50
Bufflehead										
Ruddy										
Other Common Merganser	100	100	100	100	100	150	150	150	150	150
Total Ducks	3,657	5,157	5,156	6,156	4,156	7,205	3,205	4,705	5,705	4,705
Coot:										

3 -1750a

Cont. NR-1

(Rev. March 1953)

WATERFOWL (Continuation Sheet)

REFUGE Fort Peck Game RangeMONTHS OF January TO April, 19⁶²

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen : total
	3/11-17	3/18-24	3/25-31	4/1-7	4/8-14	4/15-21	4/22-28	4/29-5/5		
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	205	2,200	1,500	2,700	1,800	2,200	2,200		98,700	
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other Total Geese	205	2,200	1,500	2,700	1,800	2,200	2,200		98,700	
Ducks:										
Mallard	6,000	5,000	2,300	1,400	1,500	1,300	1,300		467,600	
Black										
Gadwall		2	75	250	1,050	2,050	300		26,089	
Baldpate		17	150	250	550	150	150		8,869	
Pintail	4	250	7,750	2,650	850	300	200		84,343	
Green-winged teal	1	10	125	250	500	500	550		13,622	
Blue-winged teal					50	35	75		1,120	
Cinnamon teal										
Shoveler			5	100	3,000	1,700	450		36,785	
Wood									14	
Redhead		50	1,050	550	250	50	50		14,000	
Ring-necked										
Canvasback			50	100	50	25	25		1,750	
Scaup			10	2,000	1,050	550	650		29,820	
Goldeneye	50	100	250	100	250	150	50		10,150	
Bufflehead				50	50	10			770	
Ruddy										
Other Common Merganser	150	200	200	250	350	200	50		18,550	
Total Ducks	6,205	5,629	11,965	7,350	9,500	7,020	3,850		713,482	
Coot:							150		1,050	

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans	-		
Geese	98,700	2,700	
Ducks	713,482	11,965	
Coots	1,050	150	

SUMMARY

Principal feeding areas Duck Creek during winter; refuge
grain fields during migration.

Principal nesting areas _____

Reported by _____

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (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) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: 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.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.
 1953

3-1751

Form NR-1A
(Nov. 1945)MIGRATORY BIRDS
(other than waterfowl)Refuge Fort Peck Game RangeMonths of January to April195 62

(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. <u>Water and Marsh Birds:</u>										
Common Loon	2	4/8			still here					
Double-crested Cormorant	25	4/8	500	4/30	"	"				
Great Blue Heron	1	3/19	60	4/30	"	"				
White Pelican	1	4/14	300	4/30	"	"				
Sandhill Crane	2	3/27			"	"				
II. <u>Shorebirds, Gulls and Terns:</u>										
Ring-billed Gull	40	3/19	125	4/5	still here					
California Gull	2	3/27			"	"				
Franklin's Gull	5	4/20	75	4/26	"	"				
Killdeer	1	3/19	300	4/30	"	"				
Long-billed Curlew	2	4/18			"	"				
Greater Yellowlegs	1	4/30			"	"				
Mountain Plover	1	4/26								

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u>					
Mourning dove	6	4/16	1500	4/30	still here
White-winged dove					
IV. <u>Predaceous Birds:</u>					
Golden eagle			26	Entire period	
Duck hawk					
Horned owl			25	"	"
Magpie			2000	"	"
Raven					
Crow	3	3/16	200	4/15	
Bald Eagle			15	Entire period	
Amer. Rough-legged hawk			50	"	"
Red-tailed hawk	2	3/5	30	4/30	still here
Marsh hawk	2	3/5	50	4/30	" "
Sparrow hawk	2	3/12	100	4/30	
Gryfalcon	2	1/6		1	3/10
Short-eared owl			1	Entire period	
Reported by.....					

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.

UPLAND GAME BIRDS

1613

Refuge Fort Peck Game Range

Months of January to April, 1946

(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.
Sharp-tail Grouse							1,000	Population is critically low.
Sage Grouse							3,700	
Ring-neck Pheasant							1,650	
Hun Partridge							450	
Chukar Partridge							-	No sightings
Merriam's Turkey							55	

* Only columns applicable to the period covered should be used.

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- | | (1) Species | (2) Density | (3) Young | (4) Sex | (5) Removals | (6) Total | (7) Remarks |
|---------------------|--|-------------|-----------|---------|--------------|-----------|-------------|
| (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.

3-1754
Form NR-4
(June 1945)

SMALL MAMMALS

Refuge Fort Peck Game Range

Year ending April 30, 62

(1) Species	(2) Density	(3) Removals					(4) Disposition of Furs					(5) Total		
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control *	For Re- stocking	For Re- search	Share Trapping			Total Refuge Furs Shipped	Furs Donated	Furs Destroyed	Popula- tion Relative Abundance
								Permit Number	Trappers Share	Refuge share				
Coyote	Up (slightly)													Common
Red Fox	Up													Common (east)
Kit Fox	Precarious													Rare
Bobcat	Up													Common
Striped Skunk	Up													"
Badger	Up													"
Weasel	Up													"
Blackfooted Ferret	Precarious													Rare
Beaver	Static													Common
Porcupine	Up													"
Prairie Dog	Up													"
Blacktailed Jackrabbit	Static													Uncommon
Snowshoe Hare	Down													Common
Cottontail	Up													"
Raccoon	Up													"
Muskrat	Static													Uncommon
Mink	Static													Rare
River Otter	Precarious													Common
Franklin's Ground Squirrel	Up													
* List removals by Predator Animal Hunter														

* List removals by Predator Animal Hunter

REMARKS:

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 unprimeness 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.



Sage grouse on strutting grounds in McCone County.
April 20, 1962.



Prairie dog taken on February 8, 1962 overlooking
Timber Creek. Note snow in background. Dogs appear
during mild spells during winter.



Taken on Harper's Ridge April 19, 1962. Shows extremely heavy use by cattle on silver sage. This is typical of the silver sage stand in this area.



McArthur cattle - some of which died from starvation on public domain range in extreme northwest corner of Petroleum County in area of game range overused during regular grazing season.



A porcupine-damaged Ponderosa pine. Incidents of this type of damage becoming more common with decrease in bobcat population. Decrease in bobcats and increase in porcupine damage may not be related.



Elk on 4th Point.



17 lb. channel cat taken in Missouri River by son of Sipary Ann Station foreman immediately after breaking up of ice.



Photograph of trap taken as evidence in beaver poaching case on game range.

SATELLITE NATIONAL WILDLIFE REFUGES
Hailstone, Halfbreed, Mason, Miller,
Yellowwater, Warhorse & Wildhorse

NARRATIVE REPORT
January - April 1962

I. GENERAL

A. Weather Conditions.

Snow in the southern part of the state during January, February and March helped alleviate the low water of the past several years at Hailstone refuge. This did not have any appreciable effect on any of the other refuges.

The following data was taken from the Weather Bureau records at the Billings airport:

	<u>Max.</u>	<u>Min.</u>	<u>Precipitation</u>	<u>Snow</u>
January	60	-25	1.90	23.2
February	62	-17	1.26	11.7
March	67	- 6	1.23	11.5
April	85	26	.06	T
			<u>4.45</u>	<u>46.4</u>

B. Habitat Conditions.

1. Water.

Hailstone. This lake received a substantial amount of water during the spring runoff and at the end of the period only lacked about 5 feet of being full. Water conditions are best on this area since 1959.

Halfbreed. The lake received quite a little runoff water during the spring but due to the extremely dry soil it absorbed a lot of the water and by the end of the period the lake was again very low.

Lake Mason & Talbot. Remain dry.

Lake Miller, Yellowwater, Warhorse & Wildhorse. All of these lakes received a little runoff water this spring. Lake Miller will probably maintain a small body of water during the nesting season with the flow from the artesian well. Yellowwater received a small amount of runoff which put the level above the outlet and the water will undoubtedly be used for irrigation. Warhorse and Wildhorse were dry by the end of the period.

2. Food and Cover.

Food and cover were very short but generally sufficient to support the small numbers of waterfowl. The range was eaten off very close by livestock and the food supply for antelope was short. We did not observe any antelope loss during the winter which was probably due to a mild winter and not to range conditions. Due to the drouth year many of the grain fields were left unharvested therefore feed for migrating waterfowl was abundant. The ponds will probably maintain good stands of pond weeds later since they have been dry for the past two years.

II. WILDLIFE

A. Migratory Birds.

Migratory waterfowl started arriving before the ice was completely melted in mid-March. Pintail were noted using most of the easement areas during a visit on March 19-20. A few mallards were also beginning to arrive. The use continued to increase during March and April--apparently reaching a peak about the week of April 22-28. By this week a large variety of ducks had been observed--both divers and dabblers. Scaup populations were largest of all waterfowl during the latter part of the period. A few geese were observed in these areas during the migration.

B. Upland Game Birds.

No upland game was observed on the easements this period.

C. Big-Game Animals.

Antelope observed were in good condition which is surprising since the range has been very heavily used by livestock. As previously mentioned, we did not observe any winter losses. Antelope populations observed on individual areas by refuge personnel were: Hailstone 35, Lake Miller 35, Wildhorse 25, and Halfbreed 12.

D. Fur Animals, Predators, Rodents, and other Mammals.

None were observed this period.

E. Hawks, Eagles, Owls, Crows, Ravens, and Magpies.

Crows were noted in the vicinity of most of the areas during a visit in late March.

F. Other Birds.

None.

G. Fish.

Yellowwater is the only satellite area supporting fish and we believe they have all died when the lake was so low during the summer of 1961 although no gill nets have been set.

H. Reptiles.

None observed.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development.

No development was done this period.

VII. OTHER ITEMS

A. Items of Interest.

Mr. Steve Copulos, owner of ranch property and a permanent rancher in Stillwater County, passed away during the last period. Mr. Copulos will be remembered as the rancher who gave easements on the Halfbreed Refuge. We understand Mrs. Copulos plans to continue operation of the ranch property.

W A T E R F O W L

REFUGE All Satellites

MONTHS OF January TO April, 19 62

(1) Species	(2) Weeks of reporting period									
	:12/31-1/6:	1/7-13	:1/14-20	:1/21-27	:1/28-2/3:	2/4-10	:2/11-17	:2/18-24	:2/25-3/3	:3/4-10
	: 1	: 2	: 3	: 4	: 5	: 6	: 7	: 8	: 9	: 10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada										
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard										
Black										
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal										
Cinnamon teal										
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy										
Other										
Coot:										

Frozen during these weeks - no waterfowl use.

3 -1750a

Cont. NR-1

(Rev. March 1953)

W A T E R F O W L
(Continuation Sheet)

REFUGE HallstoneMONTHS OF January TO April, 19 62

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen : total
	3/11-17 : 11	3/18-24 : 12	3/25-31 : 13	4/1-7 : 14	4/8-14 : 15	4/15-21 : 16	4/22-28 : 17	18		
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada					10	10	10		210	
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other Total Geese					10	10	10		210	
Ducks:										
Mallard		50	75	100	75	50	50			
Black									2600	
Gadwall				25	25	25	25		700	
Baldpate					50	75	75		1400	
Pintail		75	100	150	100	50	50		3675	
Green-winged teal										
Blue-winged teal										
Cinnamon teal										
Shoveler					25	25	25		525	
Wood										
Redhead					20	30	30		560	
Ring-necked										
Canvasback										
Scaup					150	200	275		4375	
Goldeneye										
Bufflehead										
Ruddy										
Other Total Ducks		125	175	275	445	455	530		14,035	
Coot:					100	200	250		3850	

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production	SUMMARY
Swans				Principal feeding areas
Geese	210	10		
Ducks	14,035	530		Principal nesting areas
Coots				
				Reported by

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (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) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: 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.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

3 -1750a
 Cont. NR-1
 (Rev. March 1953)

WATERFOWL
 (Continuation Sheet)

REFUGE Halfbreed

MONTHS OF January TO April, 1962

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen : total	
	3/11-17 11	3/18-24 12	3/25-31 13	4/1-7 14	4/8-14 15	4/15-21 16	4/22-28 17	18			
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada											
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard			100	150	100	50	55		3185		
Black											
Gadwall				25	25	25	35		770		
Baldpate					50	75	75		1400		
Pintail			130	200	100	50			3500		
Green-winged teal											
Blue-winged teal											
Cinnamon teal											
Shoveler											
Wood											
Redhead						10	25		245		
Ring-necked											
Canvasback											
Scaup					100	200	250		3650		
Goldeneye											
Bufflehead											
Ruddy											
Other											
Total Ducks			250	375	375	410	440		12,950		
Coot:											

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans	:	:	:
Geese	:	:	:
Ducks	12,950	440	:
Coots	:	:	:

SUMMARY

Principal feeding areas

Principal nesting areas

Reported by

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (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) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: 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.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.
1953

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Cont. NR-1

(Rev. March 1953)

WATERFOWL (Continuation Sheet)

REFUGE Lake MillerMONTHS OF January TO April, 1962

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen : total	
	3/11-17 : 11	3/18-24 : 12	3/25-31 : 13	4/1-7 : 14	4/8-14 : 15	4/15-21 : 16	4/22-28 : 17	18			
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada											
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard		25	25	25	15	15	10		805		
Black											
Gadwall											
Baldpate											
Pintail		100	100	75	10	20			2135		
Green-winged teal											
Blue-winged teal											
Cinnamon teal											
Shoveler											
Wood											
Redhead											
Ring-necked											
Canvasback											
Scaup							15		105		
Goldeneye											
Bufflehead											
Ruddy											
Other Total Ducks		125	125	100	25	35	25		3045		
Coot:											

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production	SUMMARY
Swans				Principal feeding areas
Geese				
Ducks	3045	125		Principal nesting areas
Coots				
				Reported by

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (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) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: 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.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

3 -1750a

Cont. NR-1

(Rev. March 1953)

WATERFOWL (Continuation Sheet)

REFUGE Mason, Talbot, Warhorse, WildhorseMONTHS OF January TO April, 1962

		(2) Weeks of reporting period								(3) Estimated		(4) Production	
(1) Species		3/11-17	3/18-24	3/25-31	4/1-7	4/8-14	4/15-21	4/22-28	waterfowl	Broods:Estimated	seen	total	
		11	12	13	14	15	16	17	18	days use			
Swans:													
Whistling													
Trumpeter													
Geese:													
Canada													
Cackling													
Brant													
White-fronted													
Snow													
Blue													
Other													
Ducks:													
Mallard													
Black													
Gadwall													
Baldpate													
Pintail													
Green-winged teal													
Blue-winged teal													
Cinnamon teal													
Shoveler													
Wood													
Redhead													
Ring-necked													
Canvasback													
Scaup													
Goldeneye													
Bufflehead													
Ruddy													
Other													
Coot:													

Lakes dry.

(over)

Lakes dry.

(over)

COOP:

(5)	(6)	(7)
Total Days Use	Peak Number	Total Production
Swans		
Geese		
Ducks		
Coots		

SUMMARY

Principal feeding areas

Principal nesting areas

Reported by

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (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) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: 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.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.

1953

3 -1750a
 Cont. NR-1
 (Rev. March 1953)

WATERFOWL
 (Continuation Sheet)

REFUGE Yellowwater

MONTHS OF January TO April, 19 62

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen : total
	3/11-17 11	3/18-24 12	3/25-31 13	4/1-7 14	4/8-14 15	4/15-21 16	4/22-28 17	4/29-5 18		
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada			25	25	10	10			490	
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other Total Geese			25	25	10	10			490	
Ducks:										
Mallard			75	75	50	50	50		2100	
Black										
Gadwall			25	25	25	10	10		665	
Baldpate			10	10	10	10			250	
Pintail			100	150	100	50			2800	
Green-winged teal										
Blue-winged teal										
Cinnamon teal										
Shoveler							20		140	
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy										
Other Total Ducks			210	260	185	120	80		5985	
Coot:										

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans	:	:	:
Geese	490	25	:
Ducks	5985	260	:
Coots	:	:	:

SUMMARY

Principal feeding areas _____

Principal nesting areas _____

Reported by _____

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (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) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: 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.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

3-1751

Form NR-1A

(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)Refuge All SatellitesMonths of January to April 1962

(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. <u>Water and Marsh Birds:</u>	None observed.									
II. <u>Shorebirds, Gulls and Terns:</u>	None observed.									

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u>					
Mourning dove	100	4/25	100	4/25	
White-winged dove					
IV. <u>Predaceous Birds:</u>					
Golden eagle	None observed				
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Reported by.....					

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

Months of January to April, 1962

[illegible]

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.

3-1754
Form NR-4
(June 1945)

SMALL MAMMALS

Refuge All Satellites Year ending April 30, 1962

(1) Species	(2) Density		(3) Removals					(4) Disposition of Furs					(5) Total Popula- tion
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control *	For Re- stocking	For Re- search	Share Trapping			Total Refuge Furs Shipped	Furs Donated	Furs Destroyed
								Permit Number	Trappers Share	Refuge share			
	None observed.												

* List removals by Predator Animal Hunter

* List removals by Predator Animal Hunter

REMARKS:

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.



Picture of drainage being considered for diversion into Halfbreed Lake to augment water supply. Proposal by Copulos Ranch.



Halfbreed Lake in Stillwater County in the process of filling. It was dry in 1960 and 1961.