

ROUTING SLIP

BRANCH OF WILDLIFE REFUGES

DATE: May 20 1949

MR. SALYER \_\_\_\_\_

MR. KRUMMES \_\_\_\_\_

MR. DUMONT \_\_\_\_\_

MISS BAUM \_\_\_\_\_

SECTION OF HABITAT IMPROVEMENT:

MR. GRIFFITH REG 10-19

DR. BOURN WSB 7-25 ✓

MISS COOK \_\_\_\_\_

SECTION OF OPERATIONS:

MR. BALL \_\_\_\_\_

MR. REGAN \_\_\_\_\_

SECTION OF LAND MANAGEMENT:

MR. KENT \_\_\_\_\_

MR. ACKERKNECHT \_\_\_\_\_

SECTION OF STRUCTURES:

MR. TAYLOR \_\_\_\_\_

MR. JOHNSTON \_\_\_\_\_

STENOGRAPHERS:

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\_\_\_\_\_

NARRATIVE REPORT

REFUGE: FORT PECK GAME RANGE

PERIOD: JANUARY - APRIL 1949

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FORT PECK GAME RANGE

REFUGE NARRATIVE REPORT

January, February, March, April, 1949.

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PERSONNEL

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*		*
*	Ben Hazeltine, Refuge Manager	*
*		*
*	Clifford G. Wolf, Refuge Manager	*
*		*
*	Thomas Garratt, Refuge Manager	*
*		*
*	Norman F. Stringer, Maintenance Man	*
*		*
*	Leo D. Ellingson, Refuge Clerk	*
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UNITED STATES DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
FORT PECK, MONTANA



FORT PECK GAME RANGE

NARRATIVE REPORT

January, February, March, April, 1949

TABLE OF CONTENTS

I. GENERAL	
A. Weather Conditions	Page 1
B. Water Conditions	1,2
C. Fires	3
II. WILDLIFE	
A. Migratory Birds	2,3,4
B. Upland Game Birds	4,5
C. Big Game Animals	5,6,7,8,9 & 10
D. Fur Animals, Predators, Rodents, and other Mammals.	10,11
E. Predaceous Birds, including Crows, Ravens, & Magpies.	11,12
F. Fish	12
III. REFUGE DEVELOPMENT AND MAINTENANCE	
A. Physical Development, Maintenance, and Operational Activities.	12,13, 14,15
B. Plantings	15
C. Collections	15
D. Receipts of Seed and Nursery Stock.	15
IV. ECONOMIC USE OF REFUGE	
A. Grazing	15
B. Haying	16
C. Fur Harvest	16
D. Timber Removal	16
E. Other Uses	16
V. FIELD INVESTIGATION OR APPLIED RESEARCH	
A. Progress Report.	16
B. Bird Banding	16
VI. PUBLIC RELATIONS	
A. Recreational Use	17
B. Refuge Visitors	17
C. Refuge Participation	17,18
D. Hunting	19
E. Fishing	19
F. Violations	19,20
VII. OTHER ITEMS	
A. Items of Interest.	20
B. Photographs	20,21
ANNUAL SUMMARY REPORT	21,22, 23,24
SIGNATURE	24
NR FORMS	25-28
PHOTOS	29-38

# FORT PECK GAME RANGE

## NARRATIVE REPORT

January, February, March and April, 1949

### I. GENERAL

#### A. Weather Conditions.

January was our coldest month, with a minimum temperature of -29.3 on the 21st. Although temperatures were below normal most of the month, we did not have an excess amount of snow in this immediate area. Our only break was a welcome thaw on January 6th.

February was probably an average month with a minimum temperature of -23.2 on the 1st. Precipitation for the month amounted to .23 inches.

Thawing occurred nearly every day in March. The small amount of snow did not produce any flooding and it was nearly dry at the end of the month. March was not as windy as usual.

April was our windy and dry month for this period, total wind movement for the month totaled 7417 miles and there were only 2 traces of precipitation. High temperature for April was 83.2 degrees.

At the close of this period we are in need of a good heavy rain. Crops and grass are getting off to a slow start because of this.

Fort Peck Lake cleared of ice on the night of April 19 during a high wind.

	Precip.	Miles of Wind	Max. Temp.	Min. Temp
January	.16	7045	34.1	-29.3
February	.23	5776	42.1	-23.2
March	.15	5469	51.9	- 8.0
April	T	7417	83.2	20.1
TOTALS	.54	25707	83.2	-29.3

#### B. Water Conditions.

Lack of runoff was reflected in the level of Fort Peck Lake. Levels were;

January	1	2222.81
	10	2222.58
	20	2222.31
February	1	2221.98
	10	2221.66
	20	2221.38
March	1	2221.32
	10	2222.26
	20	2222.84



April	1	2224.22
	10	2225.07
	20	2224.96
	30	2225.19

Weir Crest Elevation	2224.943
Elevation gain or loss this period	2.38 Gain
April 30, last year	2227.5
Water Area as of April 30	197,000 acres

Game and stock reservoirs observed on the north side of the Game Range are averaging about three-fourths full at the present time. All reservoirs on and near the south side filled to spill levels during the spring runoff.

#### C. Fires.

Complete destruction by fire of a building belonging to the War Department, which was located some 40 feet from our Service Building was the closest to a fire for this period - and it was close enough.

We felt very fortunate that no damage resulted to F. W. S. property. (Picture #10).

A cooperative fire fighting plan is in the process of being completed between the Fort Peck Fire Dept. and Refuge personnel. With this addition of man power and equipment our chance of success in bringing a fire under control, on that portion of the Game Range within 40 miles of Fort Peck, is greatly increased.

Plans are also under way with the Bureau of Land Management whereby the Jordan Refuge Manager will work in cooperation with that branch on any fires on or near the Game Range west of the mouth of the Musselshell River.

## II. WILDLIFE

### A. Migratory Birds.

#### 1. Population and Behavior

##### Winter Residents.

The duck census on January 11 showed that approximately 7500 ducks were in the area.

All were mallards with the exception of 9 Golden-eye and all were in the only open water available, that being Duck Creek and the tunnel outflow.

This hungry horde of birds are apparently building up each winter and in spite of the severe weather this year we had an increase of nearly 100% over two years ago.

Again "emergency rations" were withheld as long as possible in an effort to force the birds southward but when we did open our grain cafeteria we were unable to let up until the beginning of March. A total of 664 bushels of barley was fed from January 1 thru March 1.

With this heavy feeding program going on our estimated loss, primarily from starvation, was 350, or a trifle below 5%.

On January 18, 2 mallards found dead along Duck Creek were dissected and were found to have died of malnutrition. The weekly duck count on March 14 showed the entire winter population was still with us but on March 21 only 19 ducks remained in the area they had wintered in. Opening of reservoirs and marsh areas has scattered them widely.

Two flights made by the Refuge Manager on 4/10 and 4/11/49 in cooperation with Missouri River Basin Studies, once more assured us what a wonderful thing an airplane is for wildlife observations and census work.

The Missouri River from the North Dakota line to the west end of the Game Range was flown, an airline distance of some 175 miles, and inlets, bays etc., observed that it would have been impossible to cover by any other means.

A total of 4757 waterfowl were seen, 40% of which were mallards, 20% mergansers, 10% pintails and the remaining 30% mixed and unidentified. Total flying time was 7 hours and 40 minutes.

#### Spring Migrants

60 American Mergansers really braved the elements and made their appearance on February 7 when the thermometer hovered at -10°.

Canada geese in small numbers were present along the Missouri River toward the west end of the Game Range on March 31.

A lone cormorant was observed April 19 and the Pelicans and Great Blue Herons were here by the 24th of April.

Scaup in small flocks showed up the last week of April as did the Grebes.

Ring billed Gulls came in large numbers the middle of March.

A flock of approximately 275 Sandhill Cranes passed over on April 14 and Killdeer showed up a day or two later.

#### Other Migrants Observed and First Arrival Dates.

Mountain Bluebirds	3/31
Meadow Larks	4/4
Red-Winged Blackbird	4/7
Robins	3/27
Mourning Doves	4/27
Flicker	4/20



From information obtained from the files, the spring flight was slightly larger than that of last year.

2. Food and Cover.

As always the mallards made the best use of stubble fields when weather permitted. At other times they did their best to keep alive by getting what crested wheat grass seed they could, primarily on the back side of Fort Peck Dam, and eventually were forced into local rancher's back yards to "work over" grain stacks and eat what the sheep and cattle had missed in the feed lots.

At best there were scanty rations and we feel sure that they welcomed the warmer weather fully as much as we did.

3. Disease.

None evident.

B. Upland Game Birds.

1. Population and Behavior.

The past severe winter took a remarkably small toll of upland birds in this area.

Pheasants in particular came thru in fine shape as did Sage Hens and Hungarian Partridge. Observations on Sharp-tailed Grouse have been limited and only scattered small groups were seen occasionally.

The "Huns" just don't seem able to come back in large numbers.

In contrast the Sage Hens are building up to large flocks in many areas on the Game Range.

Strutting grounds were inhabited the later part of February and on March 1 the first actual strutting was observed. This is fully two weeks ahead of their usual schedule.

With even a mediocre nesting season the "Ringnecks" should be well on the way up the ladder.

2. Food and Cover.

After the majority of the stubble fields became covered too deep with snow to yield any grain the Pheasants and Partridge changed their diets to rose hips and sweet clover which were everywhere in the draws and lower country.

A pheasant taken by a rough-legged hawk on January 11 was examined and found to be in excellent condition, his crop being stuffed with rose-hips.



Later in the month, 8 self feeders were built and put out in the vicinity of the Fort Peck townsite by the State Fish & Game Department and were kept supplied with grain from our barley bin for the following six weeks. 18 bushels being used in all.

3. Disease.

None observed.

C. Big Game Animals.

1. Population and Behavior.

Although we experienced one of the most severe extended winters for many years, we have no evidence to dispute our casual observations, and information from local residents on and near the Game Range, to the effect that our game animals came through the winter in good condition and with very little loss. This is no doubt due largely to the fact that we were somewhat more fortunate than other sections of the state and adjoining states in that over the majority of the Game Range we had only moderately heavy snowfall with our prolonged low temperatures and high winds.

The very low coyote population on the majority of the Game Range also played a major part in the prevention of winter loss of big game.

ANTELOPE

There appears to be a substantial increase in these animals over last year. Probably most pronounced evidence of this is in the Chain Buttes area, in Petroleum County where 19 animals were seen by the range survey party while passing through on April 21, and in northeast Garfield County lying east of the Musselshell River.

Wolf reports seeing 40 antelope on and near the Game Range along the south side in early spring.

MULE DEER AND WHITETAILS

The deer census, usually made during February in cooperation with the Montana State Fish & Game Department, with their plane, was not made this year due to adverse weather conditions and impassable road conditions for hauling gas, grub and other supplies into the areas to be censused.

Two aerial reconnaissance flights were made however by refuge personnel. These were in connection with special cooperative work for River Basin Studies to determine the extent of winter sports fishing on Fort Peck lake, wherein a good opportunity was presented for observations of conditions in general, including big game animals. During a flight by Hazeltine on March 6th, 5 mule deer and 7 whitetails were observed near the west end of the Game Range. Three of the Mountain Sheep were also seen in the sheep pasture enclosure.



On another flight by Garratt on March 11, a total of 107 deer and 13 mountain sheep were seen. Of these, 74 were white tails, observed on the river bottoms near the west end of the range, 60 of which were in Phillips County, and the 32 mule deer were scattered through the Range with the majority of them being near the west end. All animals appeared to be in good condition and paid little or no attention to the plane even when observed at close range. Eddie Dubois, local Deputy State Game Warden, who is probably more familiar with the entire Game Range area than any other person, was the pilot on both of these flights and was extremely helpful in assisting both Garratt and Hazeltine in becoming oriented with various locations on the Refuge.

#### MOUNTAIN SHEEP

Clifford Wolf, stationed at Jordan, Montana has been assigned the responsibility of keeping watch on the Big Horn mountain sheep that have been planted near the south boundary of the Game Range by the Montana Fish & Game Department. Mr. Wolf also assists the State with maintenance of the sheep pasture fence, springs, etc.

For detailed information on conditions and his observations at the sheep pasture the following is quoted from Mr. Wolf's report.

" In spite of a very severe winter the sheep came through in fine shape, no winter loss occurred and all six lambs are thriving.

Roads were impassable to the sheep pasture for the larger part of the winter.

One aerial inspection of the pasture was made during the period. On that inspection one sheep, a large ram, was observed on the outside of the pasture and it was feared at the time that another one had escaped. Now it is apparent that this is the one that got out almost a year ago as on a recent inspection a total of 21 sheep were counted inside the pasture. He apparently came back last fall some time and has been there all winter. He had quite an excursion as one time he was sighted about 15 miles east of the pasture. A two wing trapping fence was built on the north side of the pasture this spring in the hopes that it would be possible to run him in but so far the opportunity had not presented itself.

By the end of the period the ewes appeared to be filling out. First lambs were observed last year on May 25, but we considered the possibility of some early ones this year as the rutting season might have been disturbed by the trip up here, but so far no lambs have appeared.

The water situation in the pasture is good so far, but will have to be watched closely in the future, some thought was given to blasting the springs again this year, but was postponed due to the nearness of the lambing season.

An inspection trip was made to the pasture during the latter part of the period with Mr. Hazeltine and Mr. Casebeer of the State Game Dept., to check plant species and utilization. The following chart shows the results as found. This covers the period from fall to early spring.



There is a wide variation of the plants used by the sheep at different times of the year, winter feed seems to consist mostly of browse plants with some grass that the sheep paw for, spring use seems to be almost entirely of green grass with a possible use of some newly green annual weeds.

The following chart has been prepared as a result of investigations made during the above trip:

#### PLANT UTILIZATION CHART (SHEEP PASTURE)

Plant	Use	Parts Eaten
Big Sage( <i>Artemisia tridentata</i> )	Slight	Leaves & end of stems
Silver Sage( <i>Artemisia cana</i> )	Slight	Leaves & end of stems
Rabbit Brush( <i>Chrysothamnus</i> spp.)	Moderate	Leaves & end of stems
Snowberry( <i>Symphoricarpos</i> spp.)	Slight	Leaves & end of stems
Skunk Brush( <i>Rhus trilobata</i> )	Very Slight	Leaves & end of stems
Wild Currant( <i>Ribes</i> spp.)	None	
Shadscale( <i>Atriplex confertifolia</i> )	Slight	Leaves & end of stems
Yucca ( <i>Yucca glauca</i> )	Heavy-	Leaves
Rose( <i>Rosa</i> spp.)	None	
Pricklypear( <i>Opuntia engelmanni</i> )	None	
GRASSES AND GRASSLIKE PLANTS		Parts Eaten
	Use	
Blue Grama( <i>Bouteloua gracilis</i> )	Slight	Leaves and stems
Blue Stem( <i>Agropyron smithii</i> )	Slight	Leaves and stems
Needle Grass( <i>Stipa comata</i> )	Slight	Leaves and stems
Sand Grass( <i>Calamovilfa longifolia</i> )	None	
Prairie Beard Grass( <i>Andropogon</i> spp.)	None	
Three Awn( <i>Aristida fendleriana</i> )	None	
Threadleaf Sedge( <i>Carex filifolia</i> )	Heavy	Leaves and stems
Elk Sedge( <i>Carex geyeri</i> )	Moderate	Leaves and stems
Blue Grass( <i>Poa</i> spp)	Slight	Leaves and stems
WEEDS		
Western Yarrow( <i>Achillea lanulosa</i> )		
Monks Hood( <i>Aconitum columbianum</i> )		
Dandelion( <i>leontodon taraxacum</i> )		
Wild Onion( <i>Allium Cernuum</i> )		
Globe Anemone( <i>Anemone hudsonia</i> )		
Lvall Angelica( <i>Angelica lyallii</i> )		
Curly Cup Gumweed( <i>Grindelia squarrosa</i> )		
Sego Lily( <i>Calochortus nuttallii</i> )		
Blue Leaf Strawberry( <i>Fragaria glauca</i> )		
Yellow Sweet Clover( <i>Melilotus officinalis</i> )		
American Pasque Flower( <i>Pulsatilla ludoviciana</i> )		
Buttercups( <i>Ranunculus</i> spp.)		
Russian thistle( <i>Salsola pestifer</i> )		
Mountain Goldenpea( <i>Thermopsis</i> spp)		

This is a partial list of the weeds that grow in the pasture, spring growth was just starting so no record was kept of the use, there is no doubt however, that the sheep make use of some of these plants at various times of the year probably in the late spring and summer.



One interesting observation was made on this same trip. The sheep made quite a run around while we were trying to get a total count. One band of sheep that had run from one end of the pasture to the other were observed to be running with their mouths open in much the same manner as an Antelope. This is the first time that this has been observed."

## 2. Food and Cover.

Two field trips were made into the west end of the Game Range this spring for the purpose of range and browse surveys.

The following is quoted from Tom Garratt's report of his trip into south Phillips County, April 5 to 8.

" A four day trip into that portion of the Game Range in Phillips County was made the later part of March with Mr. Larry Brown of the State Fish & Game Department.

The primary purpose of this trip was for range examination.

Rabbit brush was used heavily by both deer and livestock.

Snow berry and willow were used to some extent and dog-wood, grease-wood, and big sage to a still lesser degree.

In no extensive area was over-grazing noticed.

The grasses were just beginning to green at this time and from all appearances were going to make a good stand.

Seven dead deer were found, two of which were white-tail bucks that had locked horns during the previous rutting season and perished. The remaining five died of unknown causes, starvation very doubtfully being one of them."

The other Survey was made April 19 to 21 as planned by Hazeltine with representatives of other cooperating agencies. The following is quoted from his report dated April 28:

" The Survey party consisted of the following men;

Russell Penny, Range Examiner, Bureau of Land Management, Billings.  
Leland Fallon, Range Manager, Bureau of Land Management, Lewistown.  
Alva Gould, Asst. Range Manager, Bureau of Land Management, Lewistown.  
Robert Casebeer, Range Fieldman, Montana State Fish & Game Department, Helena.  
Clifford G. Wolf, Refuge Manager, Fish & Wildlife Service, Jordan.  
Ben Hazeltine, Refuge Manager, Fish & Wildlife Service, Fort Peck.



The party left Lewistown on the afternoon of April 19 and proceeded to the area immediately west of the Fort Peck Game Range in Fergus County. Two pickups and a Jeep were used as means of transportation. The Jeep was especially helpful for side trips in getting into rough and isolated areas that could not have otherwise been reached, in the limited time which we had for the mission.

The late afternoon of the first day was spent looking over deer browse conditions in and around Woodhawk Creek, as well as possible site for elk planting. We entered the west end of the Game Range on the south side of the river in late evening and camped at what is known as the Peter's place, about one mile inside the refuge boundary.

On the second day (April 20) the party proceeded on east, winding in and out of the Game Range boundary. Range and browse conditions were given particular attention along Two Calf and Armells Creeks. The night was spent in the cabin at the Baucke place.

On the third and last day of the survey we continued east along the south boundary of the Game Range, stopping occasionally to observe casually, or to inspect in detail in some instances, the condition of grass and browse plants. Russell Penny familiarized the group with a system for checking range utilization as used by the Bureau of Land Management. This system was discussed at length by the group and sample area was selected and a check sheet prepared as a matter of practice and to determine the opinion of the various members. At first these opinions were somewhat varied, but after some discussion the group agreed on most of the fundamental points. Mr. Casebeer was able to identify some of the grasses and woody plants that were doubtful to other members of the party.

The principal areas visited on the last day were Carrall Coulee, Crooked Creek, Chain Butte and as far east into Petroleum County as the mouth of Soda Creek. The possibility of elk planting in these areas was also considered.

Before the party broke up a general discussion was had and the conclusion was unanimous that the range was, as a whole, in very good condition at the present time and, that while certain plants such as Rabbit brush and Skunk bush were rather heavily browsed in some areas, these probably could be considered more or less as "Ice Cream" plants and not too important in the overall diet of the deer.

Game observed during the trip consisted of; 42 mule deer, 8 white-tailed deer and 29 antelope. I also found an antler from one of the so-called "Fantailed" deer that are alledged to have inhabited the river bottoms in considerable numbers in the "Early Days", and which are now supposed to be near extinction. This three point antler is noticably smaller than that of an ordinary white-tailed deer. It was found in the river bottom, on what is known as "Kings Island". In discussing these animals with Tom Link, a river bottom "native", he stated that these deer are about one half the size of a white-tail and that they still inhabit Kings Island, which is actually an island only at times of high water, and that he had seen nine of them there during recent months.



All members of the party were also unanimous in their conclusion that immediate steps should be taken in setting up plans for a perpetual range and browse study on the Game Range and immediate vicinity by the Bureau of Land Management, State Fish & Game Department and Fish & Wildlife Service. Primary consideration should be given to:

1. Food habit studies.
2. Current Utilization Study.
3. Range Condition and Trend.

Tentative plans were agreed upon for getting permanent test plots set up at various intervals in and along the Game Range boundary. It was agreed that at least a limited number of these plots should be established at the earliest possible date so that we may have some basis for future studies and conclusions."

Range and forage requirements of the present antelope population is still far below production and a wide safety margin exists.

### 3. Disease.

Although 7 dead deer were observed by Garratt and Brown in Phillips County it was not possible to identify the cause of their death, except that two had died as a result of locked horns. (See photo) The others might have been cripples left over from last fall's hunting or from poaching through the winter. There were no signs of starvation.

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

### COYOTES

The use of 1080 poison has been very effective in the reduction of coyotes on the major portion of the Game Range. The predatory Animal and Rodent Control Division has continued their campaign against these predators during the past winter. Bait stations were established on the Game Range in Fergus, East Garfield and West McCone Counties with the usual good success.

Practically no coyotes, or the effects of them, have been noted on the Refuge. Nearly all local livestock men and sportsmen speak highly of the progress made in coyote eradication.

### BOBCATS

We have reports of a few being observed but they are doing no particular damage that we know of. Cliff Wolf keeps a sharp look-out for them in the vicinity of the sheep pasture, but no signs of them have been observed during this period.

### PORCUPINES

Damage to our timbered areas by these animals is increasing to an



alarming extent. Control measures should be undertaken at the earliest possible date and a request has been made to our Regional Office for assistance in their control by the Predator and Rodent Control Division.

#### JACKRABBITS AND COTTONTAILS

Trend is upward in number but not enough to have any appreciable effect on range conditions.

The following is quoted from Cliff Wolf's report:

" There was some winter loss among Cotton-tails and in places it was quite severe. In the early part of the winter before the bad weather came cotton-tails were all over. After the winter was over few were to be seen anyplace."

#### PRAIRIE DOGS

Seem to be increasing somewhat. Predator and Rodent Control men used 40 lbs of poisoned oats last fall in control of these rodents in the Haxby Point area with good to fair success. Continued control measures will be taken.

#### BEAVER

All indications point toward a considerable increase on the upper river area and on Big Dry. A census of these fur bearers is planned for this fall in cooperation with the State Game Department.

#### MINK

There are probably a few on Duck Creek below Fort Peck Dam, but no signs of their presence or predation to the ducks was noted the past winter.

#### E. Predaceous Birds, including Crows, Ravens, and Magpies.

Golden Eagles showed a slight increase over previous years through out the Game Range. The surprising thing being that not more of them collected their meals along Duck Creek than did, considering the numbers of weakened ducks that would have been "easy pickens". Only three were observed since January 1 in this area.

One large specimen in south Phillips County was disturbed from his meal of freshly killed sage hen.

The usual few Bald Eagles were present for only a short period this spring as they passed thru.

An occasional Snowy Owl paid its visit and most of them "ceased operations" in traps at the State Game Farm where they preyed upon the pheasants to some extent.



The Magpie population is slowly but steadily building up but our summer compliment of crows which began arriving April 1 is small enough that no control measures are necessary.

On the afternoon of March 15. 8 Rough-Legged Hawks were counted along a 2 mile stretch of road on the way to "The Pines". All of these were busy mousing.

#### F. Fish

Present indications are that fishing will again be good during the coming season but it is a little too early to make any definite commitments in this respect.

Tentative plans by the State Fish & Game Department for permitting commercial fishing in Fort Peck lake have apparently been abandoned for this year, or until further investigations of existing conditions can be made.

A rather extensive fish planting program for Fort Peck Lake is planned for this season by the Montana State Fish & Game Department.

### III. REFUGE DEVELOPMENT & MAINTENANCE

#### A. Physical Development, Maintenance, and Operational Activities.

Considerably more construction work was planned for portable patrol cabins, fire fighting units, refuge identification signs, etc: than we were able to accomplish. This was due in part to time required for property transfers and getting acquainted with the new area as a result of personnel transfers. This, along with the confusion that usually occurs at such times.

However, the following is an outline of the more important work that was accomplished by refuge personnel during the period:

##### 1. Completed remodeling Service Building rooms for office use.

This work which was started last summer, consisted of completing the remodeling and renovating of 4 rooms for office and lavatory use in the mess hall building being used as shop and Service Building.

In completion of this job the following was accomplished.

- A. Composition tile floor laid in all four rooms and waxed.
- B. Installed 3 fluorescent light fixtures, Natural gas floor furnace and thermostat control, and extension of gas line from shop furnace.
- C. Refitting doors and installing door locks and door closers.
- D. Replace damaged cellotex, painting and calsomining lavatory room.
- E. Selection and framing a collection of wildlife photos which were installed in office rooms together with large G. R. maps.



2. Improvements at Quarters No. 1 (occupied by Mr. Garratt)

Work on these quarters was begun last fall and the following improvements during the period has completed our objective of placing these quarters in a liveable condition: (See photo)

- A. Rear porch enclosure removed and rebuilt, size 8 X 12 ft.
- B. Painted porch two coats and applied last coat to garage.
- C. Landscape improvement including removal of dense weed accumulation and dead trees, lawn improvement, pruning trees and planting new trees for replacements.

3. Oil House Construction.

Salvaged material from one of our dismantled barracks buildings was used for construction of a much needed oil house, size 10 X 16 ft., near the west end of our Service Building for storage of oil, greases and paint which has been stored in the Service Building for sometime and which has constituted a bad fire hazard. This building is near completion and our oil and paint stock will be moved into it in the very near future.

4. Fire Equipment Improvement.

- A. Fire ladder installed on north end of building with sign "FOR FIRE USE ONLY".
- B. Installed 3 more foam type extinguishers in Service Building. Rearranged and relocated all extinguishers at more appropriate and accessible points and mounted on 32 X 18 inch red backing boards.
- C. Sand barrels in Service Building checked, refilled and stenciled "FIRE USE ONLY", and sand shovels painted red and mounted above.

5. Maintenance and Repair of Equipment.

In addition to the usual preventive maintenance and minor repairs, the following work was performed in our shop to keep our vehicles in good mechanical condition and for use throughout the summer months:

Ford Pickup,  $\frac{1}{2}$  ton, 1942, Tag No. I-16058.

- 1. Installed new (rebuilt) block assembly, carburetor and distributor.
- 2. New front spring installed.
- 3. Brakes checked, filled with fluid and bled.

Chevrolet Panel Sedan, 1938, Tag No. I-16059.

- 1. Installed new clutch plate, steering sector and bushing, coil and distributor points, new battery and cable and new generator.
- 2. Valves refaced and resealed and starter repaired.
- 3. Removed motor to repair oil leak at rear main bearing, and Prestone leak at rear soft plug in water jacket.



Ford Sedan Delivery, 1939, Tag No. I-16374

1. Removed motor to repair cracks in front end of crankcase.
2. Installed new front frame member, clutch plate and universal joint.

International  $\frac{1}{2}$  ton pickup, 1949, Tag No. I-16057.

1. Installed new heater and defroster, Fire extinguisher and flares.
2. Installed auxillary gas tank (45 gal.) behind cab.

Chevrolet,  $\frac{1}{2}$  ton pickup, 1941, Tag No. I-16057.

Removed tires and wheels and replaced with original 18" wheels and tires, removed auxillary gas tank, trailer hitch, fire extinguisher and license tags in preparation to sell vehicle through bid.

6. Duck Feeding

Due to prolonged cold and severe winter conditions it was necessary to step up our feeding operations for the 7,500 mallards that wintered on Duck Creek seepage area below Fort Peck Dam. 33,000 pounds of barley were fed during January and February from our supply of share crop grain. (see photos).

7. Property Inventory and Transfer.

A physical inventory of property was made in preparation for the Horn-Hazeltine transfer and again rechecked and transferred prior to Mr. Horn's departure.

8. Boundary Posting

A few boundary signs and posts that had rotted off were replaced along the south boundary in Garfield County by Cliff Wolf.

9. Miscellaneous Odd Jobs.

1. Built, painted and stenciled sign for designating new location of our office (see photo).
2. Arranged parking lot for employees cars and visitors.
3. Moved large accumulation of water and gas pipe and misc. fittings from Service Building shop to storage racks in warehouse in mess hall, No. 3333.
4. Replaced and repaired broken and damaged cellotex panels in shop and garage space in preparation for calsomining.
5. Repaired faulty light wiring in garage which eliminated lighting difficulties as well as a serious fire hazzard.
6. Installed galvanized metal eves trough above garage doors.
7. Crated and shipped surplus tools, including 4 wrench sets, to other refuges.



The following fencing permit applications were received through the Bureau of Land Management and approved during the period for construction on the Game Range.

George Currey	Sec. 17, T. 22N, R. 39 E.
Town Brothers	Sec 1 & 2, T. 21N, R. 28
John Howard	Sec. 17, T. 22N, R. 39E.
Claude Currey	Sec. 17, T. 22N, R. 39E.
A. R. Hays	Sec. 17, T. 22N, R. 39E.

B. Plantings.

1. Aquatic and Marsh Plants

None.

2. Trees and Shrubs

A few hybrid poplars from nursery plot at Bowdoin Refuge were planted at Quarters No. 1 to replace dead cottonwoods which were removed.

3. Upland Herbaceous Plants.

None

C. Collections.

1. Seed or other Propagules.

2. Specimens.

D. Receipts of Seed and Nursery Stock.

1. Fifty pounds of crested wheat grass seed was received from Medicine Lake Refuge and 25 pounds of brome grass seed from Slade Refuge in North Dakota was received for planting on Dikes etc., on the easement refuges.

IV. ECONOMIC USE OF REFUGE

A. Grazing.

Two trips were made to the Game Range this spring, the primary purpose of both to inspect range conditions. The former, north of the river, showed heavy usage in only one place and the second trip into Fergus, Petroleum and Garfield Counties showed over usage only in scattered small areas.

On the whole the range is in very good to excellent condition.



B. Haying.

Nothing to report.

C. Fur Harvest.

With the State prohibiting the taking of beaver along either the Big Dry or upper river inside the Game Range there was no fur taken legally.

D. Timber Removal.

No permits were issued or applied for during the period and no timber removal.

E. Other Uses.

Nothing under this subject.

V. FIELD INVESTIGATION OR APPLIED RESEARCH

A. Progress Report.

Only preliminary plans have been laid for perpetual range survey studies on the Game Range, but we hope to establish at least a part of our permanent check plots this summer.

B. Bird Banding.

The cloverleaf type trap constructed in December was operated 9 days during the fore part of January with the results shown below.

Drake Mallards banded	791
Hen " "	238
TOTAL	<u>1,029</u>

Sex ratio 1 hen to 3.32 drakes.

Of these only one "recovery" was made, making a total of 5 recoveries for the entire winter trapping, but toward the end of the project "repeats" ran up to 250% of birds trapped each day. As usual some of the same birds re-entered the trap day after day to stay in the "gravy-train".

Only 4 birds were lost due to injury. Three of these dying from broken necks and the remaining one from drowning.

This operation was carried on with the very able assistance of personnel of the State Fish & Game Department.

We are looking forward to again working with these people and to banding at least as many birds in the coming season as we did in the past.



## VI. PUBLIC RELATIONS

### A. Recreational Use.

About the only recreational use to report for this period is fishing which is covered under "E" below.

The War Department is going ahead this spring with their development of recreational areas at the Fort Peck Recreation area, The Pines, Rock Creek and Hell Creek.

### B. Refuge Visitors

The following were the more important visitors at the office. Many more of less importance were received.

January 18	Herb Freide, District Warden Supervisor, State Fish & Game Dept. Mutual problems and casual visit. 2 hours.
January 18	Larry Heiner and Jim Salinas, Missouri River Basin Studies, Billings, Montana, Fisheries investigation.
January 19	Clayton Zook, Miles City and Bill Richardson, Rosebud, Mont. Predatory Animal Control District Agent. Discussed location of 1080 stations.
February 1	Jack Owens, State Fish & Game Department and Leon C. Snyder Refuge Manager, Bowdoin Refuge, casual visit while passing through town. $\frac{1}{4}$ hour.
February 25	Walter Everin and Ovie Wolverton, Chief Deputies, Helena, Montana. Casual visit and discussed mutual problems. 2 hours.
March 1	Harold Price and Earl Sayler, Predatory Control Division, Havre, Montana. Discussed predations and mutual problems. 1 hr.
March 8	Jim Salinas and Joyn Byrns, Missouri River Basin Studies, Billings, discussed creel census. 1 hour.
March 19	W. E. Riter, Portland, Oregon and Gene Grand, District Agent, Billings, Montana, casual visit while passing through town, 1 hr.
April 18	Fletcher Simms and John Byrns, Missouri River Basin Studies, Billings, discussed creel census and picked up fishing information.

### C. Refuge Participation.

The Valley County Sportsmen's meeting in the Fort Peck Rec. hall was attended by Tom Garratt and Ben Hazeltine. Plans were discussed for the forthcoming fish derby and a brief introductory talk was made by Hazeltine. A good lunch was served and a splended display of moving



pictures was given by Dr. Leach of Malta, Montana. This meeting was held on the evening of February 12.

April 9. A membership drive meeting at Frazer by Valley County Sportsmen's Association was attended by Hazeltine and a short talk given on operations and future plans for the Fort Peck Game Range. The meeting was low in attendance.

The Service film, "Haunts for the Hunted" was obtained for showing by the Federation of Federal Employees in Fort Peck on January 31 and again on April 19 for showing by the Order of Eastern Star at their regular meeting in Fort Peck. Representatives of both groups expressed their gratitude and enjoyment of everyone attending.



D. Hunting.

Some thought has been given to what degree of success might be obtained at "helping" the ducks on their southward migration in the fall by opening to public shooting, that part of the Game Range in which they now winter.

It is felt that a concentration of hunters here might induce enough birds to move out to ease our winter feeding problem which is each year becoming larger.

E. Fishing.

The first half of the period was too cold for all but the very hardiest of ice fishermen and catches by these "gluttons for punishment" were small.

However, about the first of March when the weather broke to some extent, the ice below the spillway was literally dotted with holes and alive with fishermen. Two men made a nice catch of 160 yellow perch (no limit) in 3 hours.

Several limit catches of saugers were made and an occasional crappie and/or ling added variety to the sport of pulling them thru the ice.

The early part of April a few trout began hitting spoons and from then on enthusiasm ran wild.

Twenty-two fishermen were counted in a half mile stretch of river below the tunnels on the evening of April 4.

When the ice went out of the lake on the 19th of April, fishing for Rainbows from the face of the dam again became popular. To date, catches have been few and far between but 85% of the trout landed run over 4 lbs, bearing out that reproducing of this species is not taking place in these waters.

Personnel from Missouri River Basin Studies in Billings, made three trips to Fort Peck during the period to check fishing pressure and catches. The last trip during the middle of April gave them some good data on perch and saugers and crappies averaging over  $1\frac{1}{2}$  pounds.

All perch taken during March were full of spawn.

F. Violations.

While there are considerable rumors, and some evidence, of deer poaching on the Game Range, no such cases have been apprehended, probably due to the lack of time we have to spend on law enforcement work.



One pheasant poacher was apprehended by Hazeltine near Jordan on April 13 after a "hot" chase at 70 to 80 miles per hour for a distance of about 8 miles, over rough and dusty roads. Information on this case is as follows:

Offender, Ira Kellogg, County Acessor, Garfield County, charged with killing a pheasant in closed season; arraigned in State court; paid \$50.00 fine and \$2.50 costs.

There is need for considerably more law enforcement work on the Game Range.

## VII. OTHER ITEMS

### A. Items of Interest.

Ben M. Hazeltine arrived at Fort Peck on January 10 to accept the responsibility of Refuge Manager to succeed Thomas C. Horn who transferred to the Stillwater Wildlife Management Area at Fallon, Nevada on January 29.

After complete rearrangement of our fire extinguishers, sand barrels and the installation of a fire ladder was completed at refuge headquarters, a meeting of all personnel was held.

It was agreed that a fire plan should be developed for the headquarters. This also included orientation of employees with the location of extinguishers, for what the different types were to be used and how they should be used. Thomas Garratt was appointed "Fire Chief" for the present time, and it is planned to have occassional fire drills.

A plan has been setup whereby each member of the refuge staff is to participate in the preparation of the Refuge Narrative reports, including the taking and selecting of photographs. Each employees has been provided a copy of the entire narrative report outline on which is indicated the topics and (or) sub-topics which have been assigned to him and the other members.

Narrative Report data sheets are kept by each staff member at Fort Peck throughout the report period which are also made available to others at N. R. time. Clifford Wolf at the Jordan station prepares a brief outline of his activities and observations which is submitted to Fort Peck for inclusion in the report. The report for the four Easement Areas was prepared by Tom Garratt this period. The final reports are prepared by our clerk Leo Ellingson from fough draft form prepared by himself and the other members.

### B. Photographs.

A selection of photographs taken during the period will be found following the N. R. forms, part of these have been furnished through the courtesy and cooperation of Larry Brown, Range Field Man



Restoration Division, Montana State Fish & Game Department, who is now stationed in Fort Peck. Also, some were taken by Clifford G. Wolf with personal equipment and film. Both Larry and Cliff do their own developing and printing. We are indebted to them for these photos.

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## ANNUAL SUMMARY REPORT

### FORT PECK GAME RANGE

May 1, 1948 to April 30, 1949

- - - - -

#### Weather and Water Conditions.

The 8.53 in. of precipitation through May-August has been followed by only 1.01 in. of precipitation, all in the form of snow, during the entire eight month period from Sept. through April. As a result we are going through a rather severe drouth period at this time. The total of 9.54 in. for the past year compares with 10.08 in. for the preceeding year. 13.00 in. is our average annual precipitation.

We have just experienced one of the most severe winters that has occurred in this area for many years. Fortunately, we had comparatively little snowfall or otherwise the extended cold, and high winds would have made conditions extremely severe.

The customary fluxuation of water levels throughout the summer and fall has had no serious ill effects on Fish or Wildlife that we know of. We were fortunate in escaping reoccurrence of ice jams at the upper river area this spring that caused considerable damage to river bottom white-tail deer habitat during the spring of 1947 and to a lesser degree in 1948.

Stock and game watering reservoirs held out well through late summer and fall and all of them on the south side of the Range filled this spring as did the majority of them on the north side during the spring run-off.

#### Migratory Birds.

The waterfowl picture for the entire season was definately brighter than for the preceeding year. Estimated total waterfowl usage during fall migration was 79,000 ducks. As customary our spring flight of ducks was smaller than the fall flight and was estimated at 39,500.

An estimated 500 geese used the refuge during migration this spring. The most of this use is on the upper river area near the west end of the Game Range.

We have reports from local ranchers that a few geese are nesting on small islands in the river but we have not as yet been able to confirm this.



### Upland Game Birds.

The 1948 nesting season gave this group the best opportunity for a comeback in years. With the absence of the usual late frosts and with no extended periods of heavy rainfall or hail, nesting and brooding conditions were excellent. A low coyote population with a definite uptrend in rabbits has also given them some relief from predation.

The population trend on sage hens is definitely up. This is probably also true of ringnecks. Lack of time for census work prevents a definite statement on sharptails, but we believe they are increasing on an average throughout the Game Range. Hungarians are about holding their own.

### Big Game Animals.

Mule deer have done exceedingly well on the Game Range through the past year. Lack of coyote depredations appear to be responsible for the great number of twin fawns observed with does.

Whitetails, in their river bottom habitat did equally as well as the mule deer. Absence of spring flooding of the river bottoms this year as occurred during the two preceding years will allow these areas to recover somewhat from the scars of ice and water damage.

The statement that continual outflux of deer from the Game Range is seeding all of northeastern Montana is a common opinion among local sportsmen and ranchers. Many of the "old timers" agree that there are many more deer along the river in the Game Range than at any time in their memory.

Last fall marked the first open deer season on the Game Range. That portion of the refuge in Fergus County was opened to taking of bucks only from Oct. 30 to Nov. 7. A kill of 150 bucks was desired. At the close of the second day 327 hunters had checked thru 101 deer. It was estimated that a total of 64 deer were killed on the Game Range and 97 near the Game Range on the outside - making a total of 161 deer taken on and near the refuge.

The number of twin antelope fawns observed this year with does was conspicuous and noted by all persons familiar with them. While it is doubtful that the Game Range population will ever reach the 1500 as quoted in the Executive Order, without fencing the antelope ranges on the refuge, the population around the Game Range is growing rapidly.

Forage conditions on the Game Range are considered good but not excellent. There is an urgent need for establishing test plots through the Game Range and making regular surveys of our forage production and use.



Populations are building up to where at least two additional members should be added to the Game Range staff. A biologist is needed to conduct intensive range surveys to determine browse use in relation to populations and, a man to devote his entire time to law enforcement patrol.

The introduction and transplanting of 16 Big Horn mountain sheep from Colorado by the Montana Fish & Game Dept. in which we are cooperating has been somewhat successful during the past year. The sixteen sheep planted in the Billy Creek breaks in November 1947 produced six lambs during the past year and both the young and old animals all came through the past winter in good condition.

#### Predators.

Continued use of 1080 compound by the Predator and Rodent Control boys has resulted in bringing the coyote population down to a desirable level over nearly all of the Game Range. A few scattered areas may have to be inspected during the summer to determine if further intensive control measures are necessary.

#### Refuge Development and Maintenance.

The following are some of the major development, improvements and maintenance jobs completed:

1. Renovation of Quarters No. 1.
2. Completed improvements to 4 rooms in Service Building for use as office and lavatory.
3. Constructed oil house 10 X 16 ft.
4. Maintenance and Repair of all refuge equipment.
5. Winter feeding of 7500 ducks.
6. Replacement of many boundary signs and posts.
7. Also many miscellaneous odd jobs as outlined in detail in the quarterly narratives.

#### Economic Use.

Grazing, as conducted under permit by the Bureau of Land Management, shows very little overuse by livestock on the Game Range through the past year.

Two share-cropping permits are in operation covering 80 acres of farm land, and 11 gun carrying and 2 wood cutting permits were issued.

#### Public Relations.

Recreational use probably exceeded slightly the 12,000 man days estimated for a year ago.

About 60 official office visitors were recorded.

Several sportsmen's and other meetings of interest to our Service were attended by refuge personnel.

We are still striving to render the best possible service to the public through wildlife conservation and to effect good relationship with the public as well as other cooperating State and Govt. agencies.

Respectfully submitted:

B. M. Hazeltime  
B. M. Hazeltime  
Refuge Manager

Report completed May 10, 1949

*meas*  
Approved--Regional Office

Date: 5/16/49

By [Signature]



# WATERFOWL

Refuge Port Peck Game Range Months of January to April 1949

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan									
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose	3	3/15	200	3/31					500
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck American Merganser	3 11 12 21 7 1 1 7 2 20 3 2 2 60	4/1 4/8 4/4 3/25 4/19 4/19 4/19 4/4 4/1 4/5 4/6 4/23 4/27 2/7	7500 400 300 1500 2000 400 250 50 75 4000 400 150 50 150	1/11 4/10 4/10 4/1 4/25 4/25 4/25 4/15 4/10 4/10 4/10 4/25 4/30 3/30					15,000 500 900 5000 4000 1000 1500 750 200 7500 600 200 100 1500
IV. <u>Coots:</u>									

Page 26



## SUMMARIES

### Total Production:

Geese \_\_\_\_\_

Ducks \_\_\_\_\_

Coots \_\_\_\_\_

Total waterfowl usage during period 39,550

Peak waterfowl numbers 7500

Areas used by concentrations Coves on upper lake, dredge  
cuts, and river below dam.

Principal nesting areas this season \_\_\_\_\_

Reported by \_\_\_\_\_

## INSTRUCTIONS

- (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) First Seen: The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
- (3) Peak Concentration: 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 in the reporting period.
- (5) Young Produced: 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.
- (6) Total: Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the nature of the migrational movement.

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since these data are necessarily based on an analysis of the rest of the form.



3-1751  
Form NR-1A  
(Nov. 1945)

MIGRATORY BIRDS  
(other than waterfowl)

Refuge Fort Peck Game Range

Months of January to April 1949

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production		(6) Total
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young
<b>I. Water and Marsh Birds:</b>									
Blue Herons	1	4/24			Present				50
Sandhill Crane	275	4/14	1000	4/20	275	4/14			3500
White Pelican	6	4/24			Present				25
Double Crested Cormorant	1	4/19			Present				25
<b>II. Shorebirds, Gulls and Terns:</b>									
Ring Billed Gulls	20	3/15	150	4/15	Present				750
California Gulls	5	3/25	75	4/15	Present				400
Killdeer	4	4/16	200	4/30					2000

(over)



(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove	2	4/30	Still Present		100
White-winged dove					
IV. Predaceous Birds:					
Golden eagle	Present thru entire period				75
Bald Eagle	1	3/21	3	3/25	12
Duck Hawk	1	1/15	Still present		125
Am. Rough-Leg-Hawk.	Present thru entire period				1000
Magpie	1	1/30	10	2/15	25
Snowy Owl	6	4/1	Still present		300
Crow	1	3/22	150	4/15	250
Marsh Hawk	1	4/16	Still present		200
Sparrow					
V. Misc.					
White Pelican	6	4/24	Still present		25
Double-crested cormorant.	1	4/19	Still present		5
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.



3-1752  
Form NR-2  
(April 1946)

UPLAND GAME BIRDS

1613

Refuge Fort Peck Game Range

Months of January to April, 1949

(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 specificioally requested. List introductions here.
Sharptail Grouse									4000	
Sage Hens									1800	
Hungarian Partridge									300	
Ring-necked Pheasant									800	

Page 27.



## 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 Fort Peck Game Range

Year ending April 30, 1949

(1) Species	(2) Density	(3) Removals	(4) Disposition of Furs					(5) Est. Total Popula- tion						
Common Name	Cover Types & Total Acres 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				
Coyote	Down				300									200
Bobcat	Steady													250
Jack Rabbit	Up													Common
Cottontail	Up													Common
Porcupine	Up													1500
Beaver	Up													1000
Raccoon	Up													Uncommon
Mink	Steady													Uncommon
Prairie Dog	Up													Abundant
Ground Squirrel (Richardson's)	UP													Common
* List removals by Predator Animal Hunter														

\* List removals by Predator Animal Hunter

REMARKS: About 800 is as close an estimate as can be made to the number of coyotes taken with 1080 by  
Predatory Animal Control men.  
Richardson's ground squirrels appear to be increasing quite rapidly.

Reported by B. M. Hazeltine



# 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.



## REFUGE GRAIN REPORT

Refuge.....**Fort Peck Game Range**.....

Months of Jan thru April 1949...

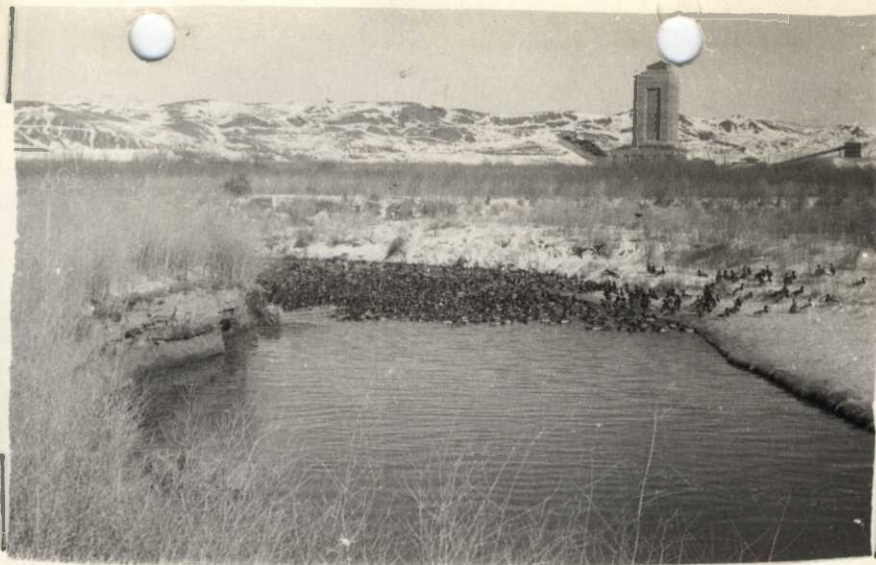
(1)	(2)	(3)	(4)	(5)				(6)	(7)		
VARIETY	ON HAND BEGINNING OF PERIOD	RECEIVED DURING PERIOD	TOTAL	GRAIN DISPOSED OF				ON HAND END OF PERIOD	PROPOSED USE		
				TRANS- FERRED	SEEDED	FED	TOTAL		SEED	FEED	SURP.
Barley	898	None	898	None	None	664	664	234		Duck	

(8) Indicate shipping or collection points.....

(9) Grain is stored at Equipment Building, Fort Peak Game Range Hod's

(10) Remarks.....





Part of 7500 wintering Mallards waiting to be fed. Note Fort Peck Power house in background. Courtesy Mr. L. Brown  
Montana State Fish & Game Dept. 1/21/49



#1. Feeding mallards on Duck Creek where 33,000 pounds of barley was consumed during January and February.

(Garratt) 1/22/49





#2 Aerial view of north side of Missouri River to east of Killed Woman Creek. This is typical for this section of the Game Range. (Hazeltine) April 11/49



#3 A typical section of the Billy Creek Country near the mountain sheep pasture. (Hazeltine) April 11, 1949





White-tail bucks who locked horns during 1948 rutting season.

Courtesy Mr. L. Brown

3/31/49

Montana State Fish & Game Department.



#4

Dead White-tail doe  
Phillips County  
Cause - undetermined.

(Garratt) 3/30/49





Close up of Chrysothamnus speciosus showing extensive use  
by deer and cattle.

Courtesy L. Brown, Mont. Fish & Game Dept.

3/31/49



#5 More usage of  
Rabbit Brush

(Garratt)

3/31/49





#6 Beaver work along Missouri River on west  
end of Game Range.

(Garratt)

3/31/49





#7 Quarters No. 1 "Before" Renovation

(Garratt)

11/22/48



#8 Quarters No. 1 "After"

(Garratt)

4/8/49





Threadleaf Sedge (*Carex filifolia*) heavily grazed by mountain sheep in fenced enclosure. April 23, 1949

Courtesy Clifford Wolf (Personal film)





Typical example of use of Yucca plants by  
mountain Sheep in sheep pasture enclosure  
April 23, 1949.  
Courtesy Clifford Wolf (personal film)





#10 War Department barracks located 40 feet from Fort Peck Service Building, destroyed by fire 1/30/49.

(Garratt)

2/1/49





# 9 Office Sign at new office  
location in Service Building.

(Hazeltine)      March 1949



# Missouri No Longer 'Big Muddy' Above Peck; Game Fish Abound

## Dam 'Pays Off' in Recreation for Residents



Roads and Anglers' Trails in Photograph

The Missouri river, known for generations as the "Big Muddy," is blue now—behind the Fort Peck dam. The sparkling waters of this up almost one-fourth the distance across the third largest state in the nation.

Now, now, around in the clear waters of the Missouri river, a silt-laden river, and a recreational plan has been mapped for the reservoir area by the corps of engineers. The plan, which is being carried out by the Corps of Engineers, is designed to become one of the west's greatest recreational developments.

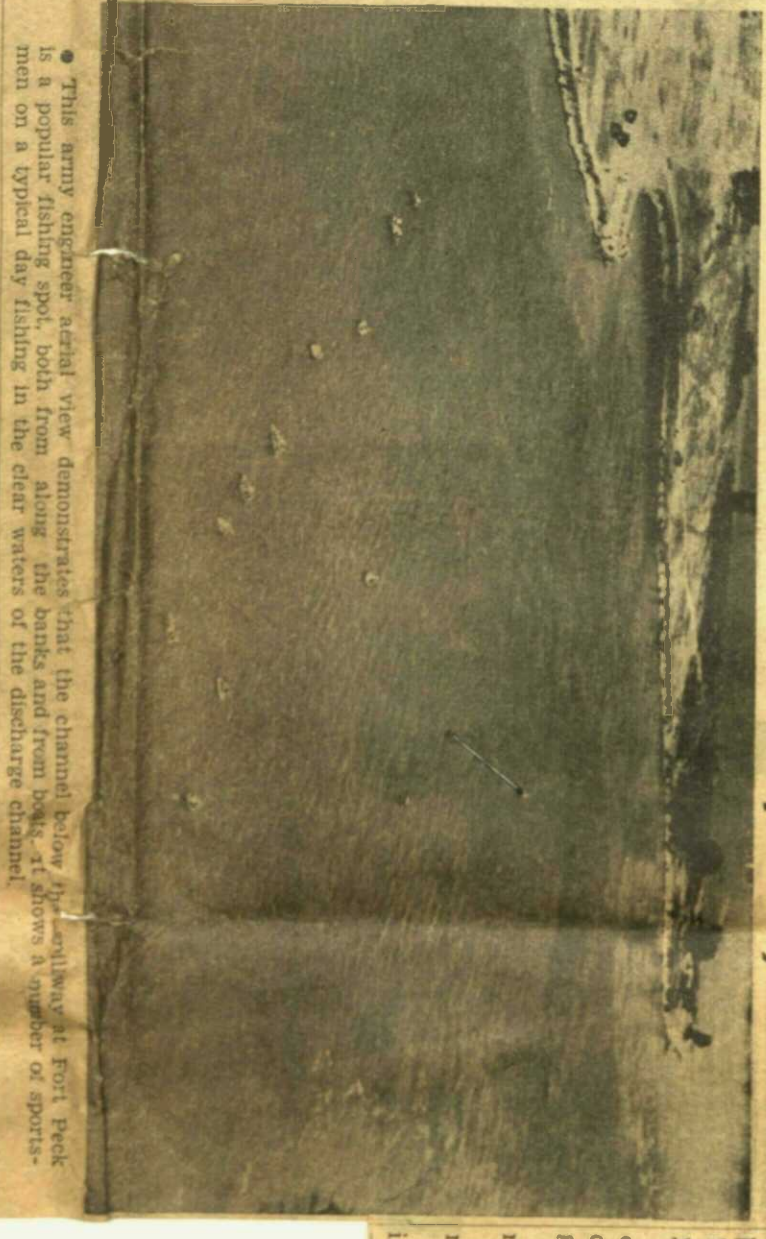
Before construction of the dam, the river prior to construction of the Fort Peck dam indicates that fishing was practically nil. The turbidity of the water, the silt-laden water, the angler instead of casting or fly line were concerned. It is reasonable to believe that large quantities of various types of fish would be present in the reservoir.

In the headwaters only could a sportsman expect to pursue a reasonable game of fishing with reasonable excitement. The desire for thousands to have a back yard fishing pond in the semi-arid Northwest is a reality. The Corps of Engineers is now carrying out a plan to really only after completion of the Fort Peck dam.

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## Fishing Boats in Fort Peck Spillway Outlet



This aerial view demonstrates that the channel below the spillway at Fort Peck is a popular fishing spot, both from the banks and from boats, at shows a number of sportsmen on a typical day fishing in the clear waters of the discharge channel.

## Badlands Back Waterfront



Boy Scouts of the Yellowstone Valley council, with headquarters in Billings, are shown enjoying water sports on their annual camp at the south shore of the reservoir north of Jordan. Badland hills are one of the features of the master recreational plan prepared by the corps of engineers for Fort Peck lake.

### Fort Peck Fishing Is Good

Editor's Note: Here is the "lowdown" on fishing in Fort Peck, prepared by Mark Watson, secretary of the North and East Montana Wildlife association, and writer of the Courier's "Outdoor Notes" column. Mark's information has been made into a bulletin, which has been issued by the Glasgow Chamber of Commerce, as an aid to visiting fishermen and tourists.

The waters of the Missouri river, impounded by Fort Peck dam, afford the very best fishing in the northwest. The lake has some 2,000 miles of shoreline with only about 50 miles that is ever fished. This, plus constant planting of fish by the state fish and game department, makes a fish population, that may become a problem. However, you cannot expect to walk up to any body of water and catch fish. The natives know where and when the fish are biting. Watch where the crowd is fishing—normally that is the place for you, and there is lots of room.

**RAINBOW TROUT**—are hitting spinners and spoons casting from the face of the dam in April, May and June. Later in the season they will be biting live bait in the lake side of the spillway and in the waters below the tunnel and spillway. They may be caught with spoons in some of these waters most of the year. Minnows always. Rainbow trout—limit 10 pounds and 1 fish.

**WALL EYE PIKE**—are a native of the Missouri river and are also being planted yearly. They will hit various plugs and spinners. Because of a preponderance of feed in the lake, you will have better pike fishing below the tunnels and below the spillway. Live bait (minnows) are the best bait for wall eyes. The spillway area almost demands a boat. Lake fishing for pike is normally slow; try the tunnels and the spillway first. Wall eye pike—limit 15 pounds and 1 fish.

**SOCKEYE SALMON**—Have been planted and are becoming more and more plentiful, and will bite worms, flies, and artificial baits. They will normally be in the lake, but fishing is slow. Sockeye Salmon—limit 15 pounds and 1 fish.

**LARGE MOUTH BASS**—have been planted, but the catch have been slow and we cannot recommend these as good fishing. Large Mouth Bass—limit 15 pounds and 1 fish.

**CHAPPIE**—are to be found in the lake and below the tunnels. The lake fishing is poor until the lake starts to recede in the fall. Then it is not uncommon for one boat to bring in 30 or 40 of these in the late summer or early fall. Chappie—no limit.

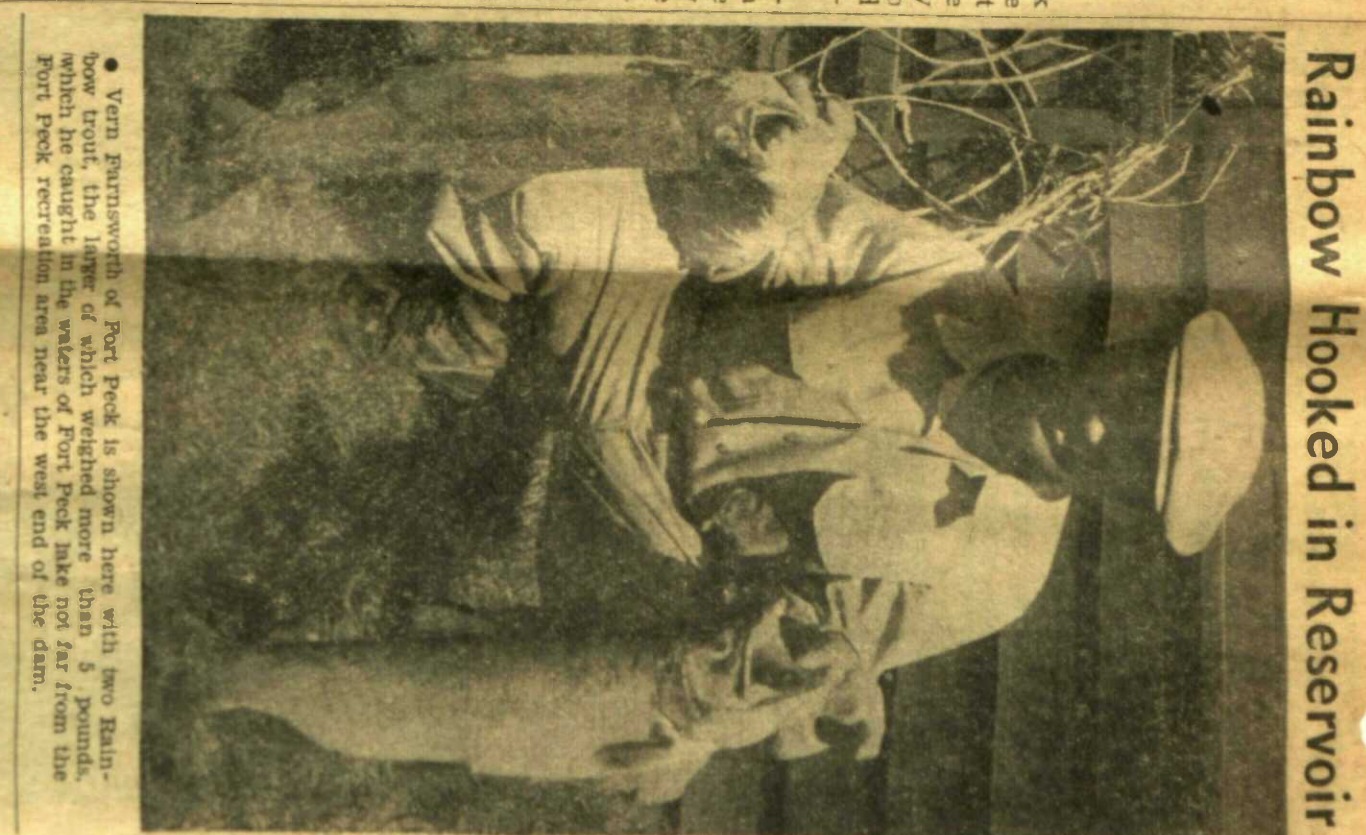
**YELLOW PERCH**—almost fill the lake. Boats have been known to bring in as many as 80 of these in an afternoon. Recog-nizing this, the state fish and game department has no limit on this fish. Some are crowding 2 pounds, average about 1 1/2 pound.

**ROUGH FISH**—the lake and all other areas are inhabited by catfish, ling, carp, shiners, sturgeon, "spoonbill cat", gar, buffalo, and many other varieties. You may have anything when you come in with your line!

Never do you need to come home from Fort Peck with an empty reel. Boats are available, plenty of shoreline, minnows can be purchased many places. You can't miss, and sporting goods stores will tell you where to go.

**LICENSES**—3 day \$2.50, and yearly license \$10 for non-resident fishermen.

**HOTEL FACILITIES**—available in nearby towns and in modern government hotel at Fort Peck at reasonable rates. Glasgow is your gateway to the dam. Fishing information is available every place.



Rainbow Hooked in Reservoir

## Home of Snob Hill's "Mayor"



This is the private home of State Sen. T. H. Marler, located in the badland area of the Fort Peck recreational site. Mr. Marler, who is a member of the state legislature, has the unofficial title of mayor of the town of Snob Hill. The building is one of the many structures that have been built in the badland area, which is now a popular fishing spot. It is available to the public on a lease basis by the corps of engineers.

### Range Protects Wildlife

Another factor which has an important bearing on the wildlife of northeastern Montana, is the Fort Peck dam. The Corps of Engineers, under the leadership of its executive engineer, Mr. J. H. Marler, has been working on a plan to protect the wildlife of the reservoir. This plan, which is being carried out by the Corps of Engineers, is designed to become one of the west's greatest recreational developments.

Before construction of the dam, the river prior to construction of the Fort Peck dam indicates that fishing was practically nil. The turbidity of the water, the silt-laden water, the angler instead of casting or fly line were concerned. It is reasonable to believe that large quantities of various types of fish would be present in the reservoir.

In the headwaters only could a sportsman expect to pursue a reasonable game of fishing with reasonable excitement. The desire for thousands to have a back yard fishing pond in the semi-arid Northwest is a reality. The Corps of Engineers is now carrying out a plan to really only after completion of the Fort Peck dam.

### Game Fish Lake Sportsmen

Now, thousands of fishermen are attracted by the clear blue waters of the Fort Peck reservoir, and the lure of rainbow and lake trout, pike, crappie, bass, perch, catfish, sturgeon, and other game fish is a reality. The Corps of Engineers is now carrying out a plan to really only after completion of the Fort Peck dam.

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### Recreation Plan for Fort Peck

The Fort Peck reservoir area is being developed as a recreational area. The Corps of Engineers is now carrying out a plan to really only after completion of the Fort Peck dam.

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Looking for a Good Restaurant?

Try Our After Game Tournament Specials

**Ship's Cafe**

CLASGOW MONT.

### State Department Plans Fish

The Montana state fish and game department is also actively participating in the development program. With the cooperation of the federal

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THE GLASGOW COURIER

Refuge Pioneer Handles Peck Game Range

# First at Benton Lake; Opened Bowdoin Reserve in 1935

When Ben M. Hazeltine took over as refuge manager of the Fort Peck game range, with headquarters in Fort Peck, it marked his

boundaries. He now "looks after" wildlife on more than 1,000,000 acres along the margins of the Fort Peck reservoir, as successor to Thomas C. Horn, who was transferred to Fallon, Nev.

Mr. Hazeltine is best known in this vicinity as the first manager at the federal Bowdoin refuge. He moved there in October, 1935, from Great Falls, where he had been in charge of the Benton Lake refuge since 1930.

At Bowdoin, he was in charge of the headquarters layout, boundary fence and water control structures construction and operation from 1935 to 1942.

His next post, which he assumed in May, 1942, was as manager of the Medicine Lake National Wildlife refuge, with headquarters in Medicine Lake. There he succeeded Mr. Horn, when he came to Fort Peck.

Temporarily, Mr. Hazeltine was in charge of the Lower Souris refuge and headquartered in Upham, N. D., from May, 1944, to October, 1945, relieving Manager J. C. Henry while he was in the navy.

One of his current responsibilities is supervising the feeding of an estimated 10,000 ducks wintering on water below Fort Peck dam. But the game range contains a variety of wildlife, ranging from deer to mountain sheep.



**BEN M. HAZELTINE**

19th year as refuge manager for the federal fish and wildlife service, most of it within Montana's