

6211

ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: 1-13 1941

☒ MR. SALYER

① ☒ ~~MRS. WOODEN~~

☒ ~~MR. ELMER~~ 3/17/41

☐ MRS. GARVIN

☒ ~~MR. DEMONT~~

gus ☒

rh

PAD

SECTION OF HABITAT IMPROVEMENT:

~~Mr. Kubichek~~

~~Mr. Smith~~ PAD

~~Mr. Griffith~~ REG

~~Miss Cook~~ mc

SECTION OF OPERATIONS:

☒ ~~Mr. Ball~~

☒ ~~Mr. Kammes~~ W

Mrs. Watkins

Mrs. Kricun

SECTION OF ERA:

☒ ~~Mr. Regan~~ JAR

☒ ~~Dr. Bourn~~ WJB

Mrs. Fishman

☒ SECTION OF LAND MANAGEMENT:

~~Mr. Barnshaw~~ B

~~Mr. Kammes~~ W

STENOGRAPHERS:

Miss Price

☒ ~~Miss Whorley~~ VW

☒ SECTION OF STRUCTURES:

~~Mr. Taylor~~ W

~~Mr. Charles~~ RDY

REMARKS:

Medicine Lake Quarterly
May - July 1940

Return to:

Cook

IN REPLY REFER TO

R

Medicine Lake

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

OFFICE OF REGIONAL DIRECTOR

600 Weatherly
SIOUX FALLS FEDERAL BUILDING

PORTLAND, OREGON

REGION 1

WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA

September 11, 1941

The Director
Fish and Wildlife Service
Washington, D. C.

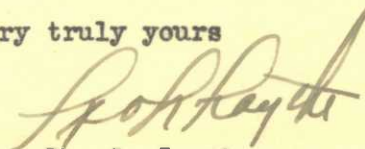
Dear Sir:

Mr. Horn of Medicine Lake Refuge advises under date of September 6, 1941, that the second species title on page 10 of his Quarterly Narrative Report for May-July, 1941, namely, "Western Sandpiper" is incorrect and should be changed to "Piping Plover".

The AOU number should be changed to 277 instead of 247. All the other information in this paragraph is correct.

Appropriate changes should be made in whatever records have been made from this report.

Very truly yours



Leo L. Laythe
Regional Director

SEP 10 1941
FISH AND WILDLIFE SERVICE
U.S. DEPARTMENT OF THE INTERIOR

SEP 10 1941
FISH AND WILDLIFE SERVICE
U.S. DEPARTMENT OF THE INTERIOR

REGION I
 NORTH DAKOTA
 MINNESOTA
 SOUTHERN CALIFORNIA
 ARIZONA
 NEVADA
 IDAHO
 MONTANA

Medicine Lake
 II
 DEPARTMENT OF THE INTERIOR

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF FISH AND WILDLIFE SERVICE

OFFICE OF REGIONAL DIRECTOR
 PORTLAND, OREGON

September 11, 1941

The Director
 Fish and Wildlife Service
 Washington, D. C.

Dear Sir:

Mr. Horn of Medicine Lake Wildlife Service under date of September 6, 1941, that the second species title on page 10 of his quarterly Narrative Report for May-July, 1941, namely, "Western Sandpiper," is incorrect and should be changed to "Hibbing Plover." The word number should be changed to 511 instead of 512. The other information in this Narrative is correct.

Have been made from this report.

Very truly yours,

Regional Director
 Geo. L. Taylor



R
Medicine Lake
H. I.

February 18, 1961

Mr. Lee L. Laythe
Regional Director
630 American Bank Building
Portland, Oregon

Dear Mr. Laythe:

In reviewing the data on tree and shrub plantings as recorded in the Medicine Lake May-July Narrative Report which was received at this office on January 18, we have found that there is considerable difference in the data from that recorded in the annual report.

Please call this matter to Mr. Horn's attention and request him to clarify the discrepancies and advise this office of the actual quantities and species of trees and shrubs planted on the refuge during the May-July period of last year.

Last spring we requested 1,000 hybrid poplars transferred from Lake Bowdoin to Medicine Lake, yet find no record of such transfer in Mr. Horn's May-July report. Please determine if this shipment was made.

Sincerely yours,

W. F. Rubiehek
In Charge
Section of Habitat Improvement
Division of Wildlife Refuges

REG/MAB:GC

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Medicine Lake National Wildlife Refuge
Medicine Lake, Montana

January 6, 1941


Regional Director
Fish and Wildlife Service
630 American Bank Building
Portland, Oregon

Dear Sir:

Transmitted herewith are copies of our
May- July quarterly report.

It is regretted that this report is so
late, but the amount of office work that has
been required of this office has been so much
greater than could be accomplished by one man
that it could not be avoided.

Very truly yours,



Thomas C. Horn
Refuge Manager



TCH:ef

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Medicine Lake National Wildlife Refuge
Medicine Lake, Montana

January 6, 1941

Regional Director
Fish and Wildlife Service
330 American Bank Building
Portland, Oregon

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Thomas C. Horn
Refuge Manager



UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

MEDICINE LAKE MIGRATORY WATERFOWL REFUGE
QUARTERLY NARRATIVE REPORT
MAY, JUNE and JULY, 1940

INDEX

I. GENERAL

Weather	1
Water	1

II. WILDLIFE

Wildlife Status	2 - 6
Waterbirds	6
Food and Cover	7
Disease	7
Upland Birds	8
Fur Bearing Animals	8
Rodent Control	8
Fish	9

III. REFUGE DEVELOPMENT AND MAINTENANCE

Physical Development	C C C	9 - 10
	W P A	10
Plantings		11 - 12

IV. PUBLIC RELATIONS

Visitors	13
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V. ECONOMIC USAGE

	13
--	----

I. GENERAL

Weather conditions through May and June were excellent for growing crops with considerable moisture and no cold. July turned off hot and dry and while crops are better than average at the end of this month, they would have been in better condition with more moisture.

	Snowfall	Rainfall	Max. Temp.	Min. Temp.
May	-	2.53	89	27
June	-	2.88	89	37
July	-	1.38	97	42
Totals	-	6.79	Extremes 97	27

With no runoff for the upper units during the spring breakup as indicated in the last quarterly report, units 10, 11 and 12 are at last falls level. Some decrease in water level is noticeable at the end of this month due to evaporation.

No trouble with fire has been experienced on this refuge during this quarter.

II. WILDLIFE

Arrival dates of late spring migrants are as follows:

Species	A.O.U. No.	Arrival Date
Common Tern ✓	70	5/10/40
Least Tern ✓	75	5/9/40
Black Tern ✓	77	5/16/40
All Herons	200	5/15/40
Wilson's Phalarope ✓	224	5/12/40
Least Sandpiper ✓	242	5/10/40

considerable space and effort would be saved if species were treated in A.O.U. order giving migration data & nesting under each species.

*used by
egg collectors*

Upland Plover ✓	261	5/14/40
Spotted Sandpipers ✓	263	5/10/40
Black Bellied Plover ✓	270	5/14/40
Lark Bunting	501	5/12/40
Chestnut Collared Longspur	536	5/10/40
Savannah Sparrow	542	5/10/40

This appears to be about average in arrival dates, no unusual records having been observed.

The following list shows increases and decreases conspicuous through this spring. Species not mentioned show little or no change.

Name	Trend	Est. Pop.
Gadwalls ✓	Decrease	500
Green Wing Teal ✓	Decrease	100
Pintails ✓	Increase	10,000
Scoups	Increase	300
Ruddies ✓	Decrease	1,200
Marbled Godwits ✓	Decrease	150

It is apparent that this years spring population of waterfowl contains a much higher percentage of nesting waterfowl than last years. Non-nesting summer residents are very much in the minority.

The following tabulation lists in approximate round numbers the spring nesting and resident population of birds. The populations shown are estimates and while they are not precisely accurate are a good indication of the present population.

Column four indicates the change over the preceding years population.

W I L D L I F E S T A T U S

<u>Species</u>	<u>Spring Migrant</u>	<u>Nesting</u>	<u>% of last years pop.</u>
Holboell Grebe			0
Eared Grebe ✓		500	80
Western Grebe ✓		200	100
Pied Billed Grebe ✓		100	80
White Pelican ✓		600	400
D. C. Cormorant ✓		16	75
Great Blue Heron ✓		10	25
B. C. Night Heron ✓		400	200
American Bittern ✓		20	100
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Canada Goose ✓	1,000		100
Snow Goose ✓	100		100
Mallard ✓	10,000	1,500	100
Gadwall ✓	1,000	500	75
Baldpate ✓	5,000	1,000	100
Pintail ✓	15,000	5,000	100
G. W. Teal ✓	3,000	1,000	100
B. W. Teal ✓	4,000	3,000	90
Cinnamon Teal	0		0
Shoveler ✓	5,000	3,000	100
Redhead ✓	2,000	200	100
Ringneck ✓	500	100	100
Canvasback ✓	2,000	300	100

48,600
 19,000
 67,600

15,600
 1,000
 16,600

Scaup Duck ✓	5,000		120
American Golden Eye ✓	10,000		100
Buffle-head ✓	1,000		100
Ruddy Duck ✓	2,000	1,000	100
American Merganser ✓	1,000		100
.			
.			
Golden Eagle ✓	50		100
Duck Hawk ✓	10		100
Sharp-tailed Grouse ✓		270	
Hungarian Partridge ✓		100	
Ringneck Pheasant ✓		50	
Sandhill Cranes ✓	2,000		
Coot ✓	7,500	2,000	100
Killdeer ✓		1,000	100
Black-bellied Plover ✓	2,000		200
Upland Plover ✓	1,000		100
Spotted Sandpiper ✓		20	100
Western Willet ✓		300	100
Dowitcher ✓	1,000		200
Marbled Godwit ✓	1,000	300	80
Avocet ✓	1,000	250	70
Wilson's Phalarope ✓	2,500	300	150
.			
.			
California Gull ✓		300	100

S. Migrant

nesting

70 3
last years

19 600

Ring-billed Gull ✓		300	100
Franklins Gull ✓		100	10
Common Tern ✓		400	100
.			
.			
Mourning Dove ✓		50	100
Burrowing Owl ✓		100	100
Short-eared Owl ✓		40	100
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.			
✓ Northern Flicker	100		100
✓ Eastern Kingbird		200	100
✓ Arkansas Kingbird		50	100
✓ Horned Lark		200	100
✓ Barn Swallow		500	133
Magpie		40	100
.			
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✓ Brown Thrasher		60	100
✓ Robin	1,000	50	100
.			
.			
✓ Northern Shrike	500		100
.			
.			
✓ English Sparrow		200	100

✓ Bobolink	100	200
✓ Western Meadowlark	2,000	100
✓ Yellow-headed Blackbird	1,000	100
✓ Red-winged Blackbird	700	100
✓ Brewer's Blackbird	500	100
✓ Dickcissel	100	100
✓ Common Redpoll	100	100
✓ Lark Bunting	3,000	100
✓ Savannah Sparrow	500	100
✓ Slate-colored Junco	300	100
✓ Chestnut collared Longspur	500	100

A. Waterbirds

1. Populations and Behavior

Arrival dates and population trends of all species have been given in tabulations in this and the immediately previous report.

Gull island, this season, is carrying an extremely heavy nesting population. The following tabulation indicates the approximate number of nests of the following species:

✓ Pelicans	✓ Cormorants	✓ Common Terns
✓ Ringbill Gull	✓ California Gull	✓ Mallards
✓ Gadwalls	✓ Pintails	✓ Redhead
✓ Ringneck	✓ Spotted Sandpiper	
600 terns nests	12 ducks nests	
150 gulls nests	3 shorebird nests	
50 pelicans nests		
5 cormorants nests	Total of 820 nests	

Considering the fact that the island is only about one acre in area this population makes an average of approximately one nest to each two square yards.

No usage has been made by waterfowl of the 38 nesting boxes placed during the past winter.

2. Food and cover

This spring Medicine Lake is producing a greater abundance of Sago Pondweed than in any previous year. Almost the entire water area west of State Highway No. 16 is full of sago and the area in front of headquarters is producing an abundant crop; some of the stems of which are a little over six feet in length. This feed has been used extensively through July. As in previous years the terrestrial vegetation around the Homestead unit has produced an immense amount of seed which was used by the waterfowl.

Turbulence of the water in unit 11, alkali content and turbidity of unit 10 has eliminated all possibility of aquatic plants growing.

3. Disease

a. Botulism

The botulism outbreak this year started on July 8 and apparently reached its peak on July 20 when 1380 birds were picked up.

It is not believed that this years outbreak will be as extensive as the outbreaks that have occurred during the preceeding three years.

A complete record of botulism poisoning will be made in the succeeding report when the outbreak is over.

b. Hailstorm

On July 14 a terrific hailstorm hit the Homestead Unit. An

idea of its severity can be realized by the fact that a hailstone as large as a golf ball was driven by the wind through a sheet of celotex one inch thick which was standing in a vertical position.

The storm killed 20 pelicans outright and approximately 20 birds with broken wings or other disabling bodily injuries were interned in the hospital. These included common terns, willets, least-pectoral and semi-palmated sandpipers, dowichers, kildeers, mallards and pintails.

On July 15, 808 birds, part of which were victims of botulism were picked up. It was estimated that about one-half of these or 400 birds had been killed by the hailstorm. Grebes, in spite of their diving ability were one of the heaviest hit of all species.

B. Upland Game Birds

Sharptail grouse and Hungarian partridges have been observed with either broods or nests.

No Chinese or ringneck pheasants have been observed nesting on the area. It is still too early in the season to make any quotations as to this year's hatch of upland birds.

C. Fur Bearing Animals

Young muskrats are in evidence at the close of this report period and all evidence points to a heavy production.

D. Redent Control

Seventy-six ^{hundred} ~~thousand~~ seventy-five acres of refuge property have been treated with 700 pounds of gopher poison. 2720 acres of this has been gone over the second time to completely kill all rodents around fields and building units.

An estimated 95 per cent kill has been realized from the

poisoning operations and has had a marked effect on range improvement this spring. The poisoning operations have met with the wholehearted approval of owners of property next to the refuge.

E. Fish

Conditions for various spiny ray fish are excellent in Medicine Lake with water of sufficient depth, abundant plankton and moderate water temperature. At present the lake contains only suckers.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development

1. C C C

Headquarters well

This unit of work has been completed with the installation of the pump and tank.

Power Line

The power line was completed on June 3 and on the same day all panel boards were changed over from single circuit 110 volt D. C. to two circuit 110 volt A. C. connections. On the same day the Montana-Dakota Utilities Co. cut in the power and made a voltage test. The following day a load test was made and the complete changeover proved satisfactory.

No. 12 Lookout Tower

Painting of this structure has been completed and the stairway was stabilized when a concrete slab for it to rest on was cast. This unit of work is now complete.

Boundary Fence

Four and three-quarter miles of boundary fence have been completed as indicated on the report map attached.

Fire Breaks

Four and one-half miles of fire break have been broken and cleared of boulders parallel to the new boundary fence shown above.

No. 1 Spillway

Work has been started on this structure. 905 cubic yards of large rock for rubble masonry have been stockpiled.

Landscaping

One hundred four yards of topsoil have been hauled into the headquarters site and placed around the buildings, graded, seeded to crested wheatgrass and rolled. This new seeding has been watered between rains and at the close of this report period an excellent stand of grass has started.

2. W P A

About 40 feet of flagstone walk has been constructed as shown on the plot plan attached.

One shop light has been taken from the center of the room where it was originally installed and placed over the work bench where it will be of more value to workmen.

A light has been installed over the drafting table in the laboratory.

A yard light has been installed on the rear of the residence to illuminate the yard at night. It is connected to the back porch light switch.

B. Plantings

1. Aquatics

Sixty pounds of seed were used to plant six and one-eighth acres of Potamogeton Pectinatus as indicated on the report map.

2. Cultivated Crops

The following tabulation shows the species and acreage of field crops which have been planted with C C C and W P A.

	Acres Planted	Seed Sown
Wheat	38.2	40 bu.
Barley	157.5	157.5 bu.
Corn	194	24 bu.
Millet	4.5	45 lbs.
Amber Cane	9.5	75 lbs.

3. Trees and shrubs

The following tabulation shows the numbers of the various species planted. Locations are shown on the report map attached.

Only the average loss in transplanting occurred on species other than Juniper. The junipers apparently are not suited for this type of soil as the loss was high.

Name	No. Planted
Elaeagnus angustifolia	7906
Caragana arborescens	7981 3981
Juniperus scopulorum	1891
Hybrid Poplars	{ 1000 - from Bowd.m) 430 moved from Hq.
Ulmus Americana	1407 649 moved from Hq.
F. lanceolata	1957 1582 moved from Hq.
P. deltoides	299 32 moved from Hq.

Correction
made in second
will
letter 4-14-41

4. Grasses

Fifty pounds of crested wheatgrass seed has been planted around the headquarters site, both on newly graded ground and on ungraded areas farther from the buildings.

This springs heavy rains has resulted in greatly improved range conditions. *Bouteloua Gracilis* has become more dense on virgin prairie areas and may be found scattered throughout most of the Norte Altissima on abandoned agricultural land. *Agropyron Smithii* is more than knee high in many of the low spots and sub-irrigated areas over the refuge. This is particularly true of the area north of No. 4 structure and east of the Homestead unit in the sheep creek coulee.

Stipa Comata is making an excellent return in areas of abandoned agricultural land and in the sand hills *Calamouilfa longfolia* is shoulder high.

Abandoned agricultural land is ^{as} usually green with *Salsola Pestifer* and Norte Altissima.

Much of the range is now satisfactory for grazing and the hay meadows are lush with a heavy growth. Extensive haying and grazing are anticipated for this summer and fall.

IV. PUBLIC RELATIONS

A. Recreational Uses

Extensive usage has been made by the public of the Homestead Recreational area through this period. School and church picnics have comprised the greatest usage with family picnics making up the balance of approximately 300 visitors.

B. Visitors

The following official visitors have called at headquarters and stayed as indicated.

Gertrude Von Kuster	Dept. of Public Welfare	2 hr. 5/23
Kenneth Roahen	Game Agent	5/28-29
J. Clark Salyer 'II'	Refuge Division Chief	6/19
P. S. Munk Pederson	Div. CCC Operations	6/21
Wm. Taylor	Washington Office	6/21
Walter E. Vroman	Regional CCC Inspector	6/8
W. F. Kubichek	Washington Office	6/27-28
Brice McBride	Salt Lake City	3 hrs. 6/30
R. G. Lenz	District WPA Engineer	3 hrs. 6/24

V. ECONOMIC USES OF REFUGE

see D. Cooperative Farming

(370 acres of

Field crops planted under authority of cooperative agreements have been making an excellent growth at the close of this period.

The hailstorm that hit the Homestead unit cut the corn fields badly and will cause an approximate loss of 30 per cent in yield.

Respectfully Submitted,

Thomas C. Horn

Thomas C. Horn
Refuge Manager



Gulls Nesting on Gull Island in Medicine Lake. Nests on this island averaged one to every two square yards, used by twelve species of birds.



Geese feeding on Medicine Lake.



Picking up young seagulls off the Lake
to be banded and released.



Mother duck and brood on #1 Diversion
ditch.



Prior to the actual outbreak of botulism a bad outbreak of localized poisoning was found in one small deep spot in the Homestead area. These birds were picked up in the immediate vicinity.



The water and muck was too deep to allow use of the caterpillar so a charge of eight sticks of 40% powder was spread over the spot. The powder lifted the muck out of the water and the wind deposited it high on shore.



Cleaning out a toxic spot in the Homestead unit with the caterpillar as a botulism control measure.



The same area after it was completely cleaned out.



Nearly all the material moved by the caterpillar was disintegrated vegetative material as shows on the near shore line in this photo.



There was no danger of flooding nests after the hailstorm as all nests not hatched were destroyed by the hail. On July 18 water was turned out of Medicine Lake into the Homestead unit to freshen the unit up.



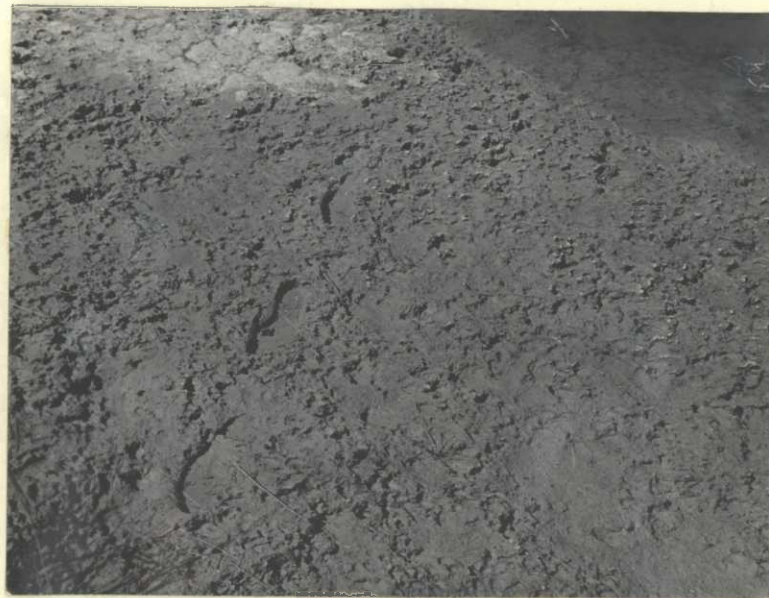
Debris from the lake piled on shore 10 to 150 feet from the lake shore and as much as 24 inches above the lake level will give some idea of the severity of the wind that accompanied the hail storm. Debris may be seen on the right and immediately this side of the pickup.



Damage to the corn crop by the hail storm is evident in this photo.



A few of the victims of the hailstorm. Pelicans, grebes, and shorebirds were hardest hit.



Hailstone marks in the mud -- further evidence of the severity of the storm.



Landscaping around the Headquarters group.



Contour tree plantings. Furrows are two plow shares in depth. Recovery percentage on plants was high.

