ROUTING SLIP DIVISION OF WILDLIFE REFUGES DATE: 9/26 1945

____ MR. SALYER

____ MR. ELMER

SECTION OF HABITAT IMPROVEMENT:

~~Mr. Griffith~~ REG 10-24

~~Dr. Bourn~~ DBB 11/13

~~Miss Cook~~ Swc 10-1

____ SECTION OF OPERATIONS:

~~Mr. Regan~~ MRR 11/1

Miss Baum

____ SECTION OF LAND MANAGEMENT:

~~Mr. Krummes~~ WK 11/5

~~Mr. Dutcher~~ PAD 11/5

____ SECTION OF STRUCTURES:

~~Mr. Taylor~~ dwm 9/27

____ STENOGRAPHERS:

REMARKS:

Lostwood & Easement Refuges

Narrative Report

May-August 1945

Return to: _____

11528

REFUGE NARRATIVE REPORT

May, June, July, August, 1945

FOR

LOSTWOOD NATIONAL WILDLIFE REFUGE

&

LAKE ZAHL, CLEARWATER, SHELL LAKE

EASEMENT REFUGES

Eric B. Lawson
Refuge Manager

I. General.

A. Weather Conditions. The general weather conditions during the past period have not been too favorable. Precipitation and temperatures for May were both below normal, for June about normal, for July precipitation was above and temperatures below normal and for August temperatures about normal with precipitation below the average. In the over all picture both precipitation and temperatures were below the average and the harvest season is about two weeks behind last year.

Hail fell on numerous occasions and only a few of the crops in the northwestern part of the refuge were not damaged. The path of heaviest destruction extends from the Elbow Lake area in a southeasterly direction across the Upper Lostwood Lake. This area was hit by hail on three different occasions and crop damage ranged from 50% to 100%. Fortunately the hail stones were small and very few dead birds were found.

The following table of precipitations was taken from the records of the Weather Bureau station at Bowbells, North Dakota.

Precipitation	1945	1944	48 yr.av.	Max. Temp.
May	.92	1.43	2.04	79
June	3.25	9.60	3.23	96
July	2.75	.63	2.32	95
August	.57	1.90	1.87	98
Totals	7.49	13.56	9.46	
Totals for year	9.32	15.40	12.06	

B. Water Conditions. Water levels in the lakes and sloughs have dropped rapidly during most of the period. About 60% of the grass sloughs and smaller potholes have gone dry and unless some very heavy rains are received during the next two months another 25% will go dry before the freeze up. The larger areas, while still in fair condition, have all dropped about a foot. and a summary of some of these areas follows:

Iverson Lake. This area has dropped about 8 inches but it is still above the high mark of last year. This area raised over a foot when 2 small "farmer dams" near the refuge washed out.

Upper Thompson. about 8 inches below spillway level.

Thompson Lake. Is down about 12 inches. It is at about the same height as in August 1942.

Tower Slough. About 12 inches below spillway level.

Elbow Lake. Is down about 16 inches below the April 1st. level.

School Section Slough. Has dropped about 10 inches.

Dead Dog Slough. Has dropped about 10 inches.

Knudson Slough. About 16 inches below spillway level.

Upper and Lower Lostwood Lakes. Both have dropped almost 12 inches.

Rock Slough. Has gone dry.

The marsh between Iverson and Thompson Lakes is holding up very well. It still has over 12 inches of water.

C. Fires. There has been no fires or threats of fires during the period. However conditions are such that if a fire should get started on the refuge it would be very difficult to stop. There is a very heavy mat of old vegetation and since August has been so dry most of this years growth will also burn. All fire fighting equipment is being kept in readiness. Fire breaks are to be maintained around buildings.

II. Wildlife.

A. Migratory Birds.

1. Population and Behavior. Though the refuge was not as attractive a nesting area to the early migrants, the population of nesting birds and the numbers of young produced were both greater than in 1944. Also the numbers of birds using the refuge during the period will be much greater. There was a steady migration to the refuge as many of the small shallow potholes in the fields near the refuge went dry. This was particularly noticeable during the latter part of August when harvesting operations and several unusually hot days accentuated the movement.

The heaviest populated areas are the smaller lakes and larger sloughs such as Knudson, Dead Dog and School Section slough, Iverson and Upper Thompson Lakes. It was again noted that the small potholes had the highest percentage of young ducks.

In some instances where it was possible to get accurate counts it was found that the young out numbered the adults three to one. The hatch was again considered to be good. A few broods were found to be more advanced then last year but in general the nesting period was about the same as some small ducks are still being found.

The nesting population is made up almost entirely of the dabbling variety. The population of redheads, canvas backs, ruddies and scaup are very low with the ruddy being the most abundant of the diving variety. The broods of these ducks also appeared to be smaller. No young scaup were found at all and inacheck of Iverson Lake three canvasback hens were observed with only one young each. The absence of young scaups was particularly noticeable when considering that the spring migration was possibly,

the heaviest we have seen and that adult birds were found on the refuge throughout the period.

The population of such waterbirds as gulls, terns, grebes, coots etc. appeared to be a little greater then in 1944. Pelicans have beenobserved on several occasions but they are infrequent visitors and never stay very long.

The shorebird population was also a little above 1944. The receeding water levels again made some areas attractive to these birds, though their numbers were still much below those of some former years.

While the hail storm of July 20th. did kill some ducks, the number of dead on the refuge is estimated at less than 200. It is our opinion that since the hail stones were not very large the heavy stand of vegetation prevented many more birds from being killed. Only 17 dead birds were found on Elbow Lake while on one small barren pothole in a pasture south of this area 23 dead birds were found.

2. Food And Cover. No apparent change has been noted in the vegetation of the marsh areas as a result of the lowering water levels. The stands of marginal and aquatic vegetation in all areas is as good or better than last year. In the hailed out areas ,new growths have came back with surprising rapidity and little evidence of the damage can now be found.

Ducks have started to feed in the grain fields but thus far only one complaint of damage in this area has been reported to this office. The farmer was advised on how to made devices to keep the ducks out of his fields and assistance was given in the scaring. Little use is being made of refuge grain fields at the present time and the hailed out fields will furnish very little feed since the grain was damage before it was sufficiently matured. Again this year the entire refuge share of the share-cropped grains are being swathed or mowed to try to keep the ducks on the refuge until after the grains on the outside are harvested.

3. Diseases. Again this year there are no indications of botulism, lead poisoning or any other diseases, even in those areas were birds have been killed by hail.

B. Upland Game.

1. Population and Behavior. The pheasant and grouse have both had successful nesting seasons. The pheasant has shown the highest percentage of increase and appears to have had the most success in bring off it's hatch. Many broods have also been found in the territory around the refuge and all were large and well developed.

The grouse appeared to be only a little more successful than last year though the young are more matured. The broods where accurate counts were possible averaged from five to seven birds.

The Hungarian Partridge has apparently suffered a severe setback. Very few birds are to be found either on the refuge or in the surrounding territory. We are unable to account for this setback except that maybe these small birds are subject to heavier predator pressure than are either the grouse or the pheasant. Reports from local residents and sportmans also indicate that there are fewer birds and that the hatch is much later than last year.

No dead birds of these species were found in the hailed- out area. During the investigation conducted after storm there appeared to be as many birds as previously.

2. Food and Cover. Upland game food and cover are again abundant and heavy. Even in the area where hail did the most damage to crops the tree clumps and bush patches were not damaged very much and still afford good cover. Natural food plants have produced good crops of fruits and those grain fields that were not completely hailed out will furnish some grain during the fall and winter months.

C. Big Game.

1. Population and Behavior. The deer population has enjoyed a very productive season. More fawn have been observed during the past period than at anytime since deer became common to this area. Several pairs of twins and even one set of triplets have been observed. The animals all appear to be in excellent condition and no signs of predation have been found.

2. Food and Cover. Groves in the areas most frequented by deer are getting thin. However, during the recent inspection of this area by Mr. Gillett, an investigation was made to determine if this condition was due to the deer. It was decided by Mr. Gillett that while deer were responsible for some of the condition, most of it was due to the natural process of development. Food was felt to be plentiful and cover to be satisfactory except possibly in the event of an unusally severe winter.

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

While the population of some of such fur animals as shumk, weasel, mink and badger appear to be a little larger than last year, the muskrat population is estimated to be as much as 50% lower. During the past month as water levels went down an extensive movement of muskrats was noted. They were found traveling on roads and through fields at almost any time of the day or night and it is known that many fell prey to dogs, cats, hawks, owls and automobiles. New houses are just beginning to appear in the sloughs but the number is far below that of last year.

There are still a few coyates in the territory. Three young pups have been observed on the refuge and a local stockman has shot three adults during the last month. While there were a few scattered reports of stock depredations, there has been none to this office for some time.

The rodent populations continue to decrease. The total numbers of the three ground squirrels common to this region observed during the past season were less than was usually destroyed every week in the spring and summer of 1940. The white-tailed jackrabbits are increasing slightly but their numbers are still so low that no control measures are necessary. The porcupine is still doing a little damage to trees but the population is being held in check and no addition control measures are felt to be necessary.

E. Predacious Birds. The resident populations of the predacious birds were much below last year and it is felt that the very low rodent population was in part responsible for the decline in the number of hawks. It is also felt that the shortage of rodents has caused these birds to turn to poultry and upland game birds for at least Two Swainson's hawks in the immediate vicinity are known to have started raiding poultry flocks. Crow and magpie populations were also much lower. This was possibly caused by the control measures practised by the various sportsmens' organizations and by our evening and Sunday recreations where in more than 40 nests with over 150 eggs and young crows and magpies were destroyed.

The southward crow migration is just starting and only one large flight has been observed in this territory.

III. Refuge Development and Maintenance. And M

A. Physical Developement.and Maintenance. The jobs during the past period have been the maintenance of fences, signs, roads, building s and equipment. Interior fences and gates in the grazing units have been repaired. In most of this fence, all the wires had to be restapled. Four of the large recognition signs were replaced and about 40 miles of the boundary fence repaired. Lighting damage to the telephone line was repaired and brush trimmed along the line. Damage to the telephone line has been considerably less since the sub-station protectors were installed. The size of the fill in the drainage ditch between Iverson and Thompson Lake was increased to hold up to four feet of water in the marsh.

The floor in the office was repaired and painted. The interior of the residence was redecorated and the floors varnished. Work has been started on enclosing the front porch and is about 20% completed.

B. Plantings.

1. Cultivated Crops. A total of 2560 acres of tillable lands were leased out on a cash-share and share-crop basis. Of the 1200 acres leased on a cash-share basis it is estimated that about 90% was put into crop but less than about 75% will be harvested and only 250 acres have not been damaged by hail. Of the 1360 acres leased out on a share-crop basis it is estimated that there will be less than 800 acres harvested since more than 400 acres was totally hailed out and there is less than

300 acres of the balance that did not suffer some damage.

At the present time none of the grain has been harvested but it is estimated that the average yield will be below 10 bushels per acre. Thus the total crop harvested will be less than 15000 bushels. The amount that will be swathed for wildlife is estimated to be less than 1500 bushels. There may be another 1000 bushels of hail damaged grain that will be left standing since it will not pay harvesting expenses. Crops being grown this year include wheat, barley, oats, flax and millet.

IV. Economic Uses.

A. Grazing. Our grazing program has been more successful this season. At the present time eight permits have been issued with a total of about 525 A.U.M's. being furnished to about 397 head of cattle. Grazing Units 2,4,and6 are being used. A few head were put in G. 8 but these were removed on August 29.

This season the grazing period extends from July 1 to Nov.30 and it was felt that the range was sufficient to furnish 3950 animal use months grazing. Thus less than one-half of the potential resource is being untilized at this time, and little affect on the range can be seen.

B. Haying. Permits for the harvesting of approximately 200 tons of hay have been issued but it is very doubtful if more than one-half this amount will actually be harvested. The labor shortage being the chief reason that more may not be put up.

As expected the demand was not as large as that year and since most of the hay that will be harvested will come from grass sloughs the quality will be low. The stand in most of these areas has been found to be very light.

C. Other Uses. Permits for the removal of approximately 90 yds. of gravel have been issued and $13.75 has been received as part payments. This gravel is being removed from a pit on the east shore of Thompson Lake. It has a low clay content, is free of slate, and is probably the best gravel in the territory for concrete construction. It is expected tha t a considerable quantily will be removed after the harvest this fall.

V. Public Relations.

A. Recreational Uses. There has been no requests for this use during the past period.

B. Refuge Visitors.

5-3-45 E. S. Brynjolfson, District Warden, in briefly in regards to game law violations.

5-22-45 W. Geiger, Sec. Des Lacs Sportsmen Assn. in briefly.

5-24-45 Mr. Aitken, Geological Survey, out to measure wells. 3 hrs.

8-11-45 Mr. O. H. Johnson, Reg. Dir., Mr. Harold Titus, Sat. Eve. Post, and Mr. Harry Jenson, Game Man. Agent, out briefly in regards to waterfowl conditions.

8-22-45 Dr. Kathrine Mary out to observe wildlife. 4 hrs.

8-31-45 F. C. Gillett, Ref. Inspector, inspection of Lostwood and Shell Lake Refuges. 8 hrs.

C. Refuge Participation. Attended meetings of Des Lacs Valley Sportsmen Assc. on 5-16, 7-18, and 8-18-45. State game and fish commission members of Fish and Wildlife Service at Bismarck, North Dakota on 8-17to 8-18-45. Attended meeting of Regional Director and Game Management Agents and Refuge Managers in Minot, North Dakota 8-20-45.

D. Violations. Apprehended Wm. Roberg of Powers Lake, North Dakota hunting Skunks in closed season near the refuge. The case has been turned over to the State Game and Fish Commission and has not been brought to court at this time.

September 10, 1945

Prepared and submitted by

Eric B. Lawson

Eric B. Lawson
Refuge Manager

8-11-45 Mr. O. H. Johnson, Reg. Dir., Mr. Harold Titus, Sat. Eve. Post, and Mr. Harry Jenson, Game Man. Agent, out briefly in regards to waterfowl conditions.

8-22-45 Dr. Kathrine Mary out to observe wildlife. 4 hrs.

8-31-45 F. C. Gillett, Ref. Inspector, inspection of Lostwood and Shell Lake Refuges. 8 hrs.

C. Refuge Participation. Attended meetings of Des Lacs Valley Sportsmen Assoc. on 5-16, 7-13, and 8-13-45. State game and fish commission members of Fish and Wildlife Service at Bismarck, North Dakota on 8-17to 8-18-45. Attended meeting of Regional Director and Game Management Agents and Refuge Managers in Minot, North Dakota 8-20-45.

D. Violations. Apprehended Wm. Roberg of Powers Lake, North Dakota hunting Skunks in closed season near the refuge. The case has been turned over to the State Game and Fish Commission and has not been brought to court at this time.

September 10, 1945

Prepared and submitted by

Merlo E. Lawson
Refuge Manager

Lake Zahl. Visited 8-22-45

Water. Units north of railroad were about 6 inches below the level of culverts under the highway. The south unit was about 2 feet below spillway level.

Wildlife. The total waterfowl population was estimated about 8000 birds, composed principally of mallards, pintails, wedgeons, teal and shovelers in that order. Ruddies and canvasback appeared to be the most numerous of the diving species, however a high wind prevented us from making as accurate a count as was desired. No upland game birds were found on the entire area.

Maintenance. Skunk, badger and rodent burrows were filled in on the dam and the fence around the structure was repaired. Signs posts were straightened and damaged signs replaced. Three broken sign posts were picked up.

Shell Lake. Visited 8-31-45 in company with Mr. Gillett.

Water. The lake was about 16 inches below overflow level.

Wildlife. An estimated 5000 ducks and coots on the lake. No upland game or other wildlife observed.

Clearwater Lake. Visited 8-19-45

Water. This lake has dropped about 8 inches below the ice level. It has a good stand of poludosus along the north and west shores.

Wildlife. About 450 ducks and coots on the lake . High winds prevented making accurate counts. Two new muskrat houses were observed. No upland game birds were observed.

Note. NR-1 Forms not submitted for the Shell Lake area since it was not possible for us to make counts of the individual species in the short time spent on the area.

Form NR-1

MIGRATORY BIRDS

Refuge ~~Lostwood National Wildlife~~ Months of ~~May 1~~ to ~~August 31~~, 194~~5~~

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti-mated Total	Number Using Refuge
White Pelican	8	5-27									50
Black-crowned heron	4	5-22									20
Great blue heron	1	5-26									10
American Bittern	1	5-19									30
Mallard								22	6	3500	15000
Gadwall								3	7	1000	2500
Pintail								16	6	3000	10000
Wedgeon								18	5	2500	8000
Green- winged Teal								2	4	150	500
Blue - winged Teal								18	6	2500	8000
Shoveler								14	6	2000	7000
Redhead								6	6	150	500
Canvasback								8	4	200	800
Scaup				4000	5-19						8000
Bufflehead						6	5-27				50
Ruddy								2	5	250	800

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

(1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".

(2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.

(3) BECAME COMMON: The date the species became common on the refuge.

(4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.

(5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.

(6) YOUNG PRODUCED: Estimated number of young produced based upon 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 are to be omitted.

(7) 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 manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

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

Form NR-1

MIGRATORY BIRDS

Refuge Lostwood National Willife Months of May1 to ~~August 31~~, 194-5-

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti-mated Total	Number Using Refuge
Pied- billed Grebe		5-14									
Sora		5-14									
Coot										150	600
Piping Plover	4	5-27									
Upland Plover	2	5-9								60	250
Avocet										50	400

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

(1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".

(2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.

(3) BECAME COMMON: The date the species became common on the refuge.

(4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.

(5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.

(6) YOUNG PRODUCED: Estimated number of young produced based upon 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 are to be omitted.

(7) 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 manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

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

Form NR-2 UPLAND GAME BIRDS 1613

Refuge ~~Lostwood National Wildlife~~ Months of ~~May 1~~ to ~~August 31~~, 194~~5~~

(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'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Sharp-tailed Grouse			12	1300					2300	
Hungarion Partridge			2	50					250	
Ring-necked Pheasant			9	250	40% M.				450	

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.

Form NR-1

MIGRATORY BIRDS

Refuge Kahl Months of May 1 to Aug 31, 1945

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti-mated Total	Number Using Refuge
White Pelican											
Horned Grebe											30
Mallard											40
Gadwall											2000
Wedgeon											300
Pintail											1500
Gr. W. Teal											1800
Blue W. Teal											1000
Shoveler											50
Redhead											700
Canvasback											100
Scaup											250
Ruddy											100
Coot											300
											300

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

(1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".

(2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.

(3) BECAME COMMON: The date the species became common on the refuge.

(4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.

(5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.

(6) YOUNG PRODUCED: Estimated number of young produced based upon 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 are to be omitted.

(7) 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 manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

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

Form NR-1

MIGRATORY BIRDS

Refuge Clearwater Months of May 1 to August 31, 1945

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti-mated Total	Number Using Refuge
Mallard											150
Blue Winged Teal											75
Pintail											100
Wedgeon											75
Shoveler											50
Canvasback											6
Ruddy											10
Coot											30

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

(1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".

(2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.

(3) BECAME COMMON: The date the species became common on the refuge.

(4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.

(5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.

(6) YOUNG PRODUCED: Estimated number of young produced based upon 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 are to be omitted.

(7) 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 manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

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

3-1570

QUARTERLY GRAIN REPORT

Station Lostwood Refuge Period ending August 31 1945

This report should cover all grain received, or disposed of, during the quarterly periods ending January 31, April 30, July 31, and October 30. Reports in duplicate, clipped to, but not bound as a part of, the quarterly narrative report, should reach the Regional Office by the 10th of the month following the close of the period covered by the report. The Regional Director, after approval, will forward the original to Washington.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)--55 lbs., Corn (ear)--70 lbs., Wheat--60 lbs., Barley--50 lbs., Rye--55 lbs., Oats--30 lbs., and Mixed--50 lbs. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels. Report all grain received during period from all sources, such as transfer, share cropping, or harvest from feed patches.

Variety	On Hand Beginning of Period	Received During Period	Grain Disposed of				On Hand End of Period	Proposed Use		
			Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Corn										
Wheat	~~527~~	0	0	0	3	3	324			123 200
Barley	~~217~~	0	0	0	2	2	213			60 150
Rye										
Oats										
Mixed										

1. Indicate shipping or collection points _____

2. Grain is stored at Headquarters granary

3. Remarks ~~300 bushels wheat and 150 bushels barley~~ are available for transfer.

Approved by:

_____
Regional Director

Submitted by:

Eric Lawson
Signature and Title
Eric B. Lawson
Refuge Manager


SEP 17 1945
FISH AND WILDLIFE SERVICE


RECEIVED
SEP 17 1945
REGION 3
FISH AND WILDLIFE SERVICE


DEPT. OF THE INTERIOR
FISH AND WILDLIFE SERVICE
RECEIVED
SEP 26 1945
RECORDS AND
COMMUNICATIONS