

ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: Sept. 27, 1946.

MR. SALYER

SECTION OF HABITAT IMPROVEMENT:

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Mr. Griffith

MR. KRUMMES

~~Dr. Bourn~~

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SECTION OF LAND MANAGEMENT:

Mr. Regan

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~~Mr. Krummes~~

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MR. Ball

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STENOGRAPHERS:

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REMARKS:

NATIONAL WILDLIFE EASEMENT REFUGE DISTRICT NO. 2 - NORTH DAKOTA

NARRATIVE REPORT

MAY - AUGUST 1946.

Return to: _____

Easement Refuge Narrative Report in District 2, N. Dak.

Period- May, June, July and August 1946.



1. Lake Ardoch Refuge.

1. General.

A. Weather Conditions. Over this District No. 2, the weather has been dry and not the regular amount of rainfall has been received. The most of the water areas were filled or almost filled with water this spring which was carried over to a great extent from last fall. There was a fair snowfall last winter and it came early and the ground froze none or but little. The snow, when it melted, disappeared into the soil in the form of water. There was not much of run-off this spring for that reason. It has remained dry during this period. A few rains were received the last of June and the first part of July and the pastures were helped out and the grain crops. A fair grain crop is being harvested but the hay crop is short. By the end of this period, the land is very dry and short of moisture. The water level in all of the water areas have dropped during this period. It has been cloudy a fair amount and that has helped save some moisture but the wind has blown much and strong which has caused the loss of much moisture. The moisture that has been received during the period is given below: (Less moisture was received in the immediate Lake Ardoch locality than is given below because according to reliable reports, only a few small rains were received since spring and the moisture from them, just evaporated or went right into the soil and was not enough to help but little.)

	Snowfall	Precip.	Max. Temp.	Min. Temp.	Normal Precip.	Plus or Minus Precipitation.
May		.92	83	20	2.03	- 1.11
June		2.98	90	33	3.56	- .58
July		1.60	98	47	2.57	- .97
August		.99	99	39	2.48	- 1.49
		6.49			10.64	- 4.15

B. Water Conditions. This area was inspected on August 9th. as well as other times during the period. The water level was 24" below the top of the gates on that date. In other words, the level was 6" lower than it should be. The gates have been closed tight since July 20th. when the water level was 6.80. The water level should be about 7.00. There is only a stream of water 12" wide and 2" deep flowing in the Forest River and on into Ardoch Lake on Aug. 9th. The wind has been blowing much and the lake has lost much moisture due to evaporation. The level should raise if some good rains are received. If the weather continues dry and the wind blows strong and much, the level will be apt to get lower.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. When the area was inspected in July and the brood census taken, but no young birds were seen. There were 4 blue-wing teal, 6 mallards and 10 unidentified ducks seen only on the water area.

Note to The Office:

No upland game bird report
forms have been included in
this report since it has
been found that it is not
possible to get to the
forms by mail.
They have been fully reported in
the report of the field.

Assessment Refuge

Period - May, 1

1. Lake Ardoch Refuge.

A. Weather Conditions. Over

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The snow, when it melted, disappeared into the soil in the form of water.
There was not much of run-off this spring for that reason. It has remained
dry during this period. A few rains were received the last of June and
the first part of July and the pastures were helped out and the grain
crops. A fair grain crop is being harvested but the hay crop is short.
By the end of this period, the land is very dry and short of moisture.
The water level in all of the water areas have dropped during this period.
It has been cloudy a fair amount and that has helped save some moisture
but the wind has blown much and strong which has caused the loss of much
moisture. The moisture that has been received during the period is given
below: (Less moisture was received in the immediate Lake Ardoch locality
than is given below because according to reliable reports, only a few small
rains were received since spring and the moisture from them, just evaporated
or went right into the soil and was not enough to help but little.)

	Snowfall	Precip.	Temp.	Min.	Normal	Plus or minus
May	.82	83	20	2.03	2.03	- 1.11
June	2.88	90	33	3.56	3.56	-.58
July	1.60	98	47	2.57	2.57	-.97
August	.92	99	39	2.48	2.48	- 2.42
	6.49			10.64		- 4.16

B. Water Conditions. This area was inspected on August 9th, as well as
other times during the period. The water level was 24" below the top
of the gates on that date. In other words, the level was 6" lower than it
should be. The gates have been closed tight since July 20th, when the
water level was 6.80. The water level should be about 7.00. There is only
a stream of water 12" wide and 2" deep flowing in the Forest River and on
into Ardoch Lake on Aug. 9th. The wind has been blowing much and the lake
has lost much moisture due to evaporation. The level should raise if some
good rains are received. If the weather continues dry and the wind blows
strong and much, the level will be apt to get lower.

II. Wildlife.

A. Migratory Birds.

1. Population and Behavior. When the area was inspected in July and the
good census taken, but no young birds were seen. There were 4 blue-wing
teal, 6 mallards and 10 unidentified ducks seen only on the water area.

It was estimated ~~estimated~~ that a few broods were hatched on the refuge area. This is not a hatching area or nesting. The waterfowl use it of a spring and fall as a resting and place to feed some on their flights.

b. The migrating waterfowl use the water area as a resting place during the flights and then go out and feed on other areas. They like to feed in corn fields or grain fields where grain is still left on the ground.

2. Food and Cover. There is a fair amount of sago pond weed on the north end of the water area where the Forest River flows into the lake that the birds feed on and then they do much feeding in in the fields. There is no cover out over the water. There is cover along the shore line at places where the land is not pastured much of grass and weeds.

B. Upland Game Birds.

1. Population and Behavior. During the time the brood census was taken of the waterfowl and the area gone over at other times this period, no upland game birds were seen. It is believed that there are a few pheasants, partridges and that some grouse may have used it some.

The birds should do fairly ^{well} on and around this area since there is fair shelter of trees and brush at places on the Refuge and around it. The farmers raise much small grain and some corn. Not so much snow was received in this area last winter as in other parts of the District but there are few upland game birds on the Refuge and in the whole immediate vicinity.

C. Fur Animals, Predators, Rodents and Other Mammals. The animals are about the same during this period as during past periods. There are a few weasels, mink, muskrats and some foxes use the area during the winter

D. Fish. There are some bullheads, white buffalo and minnows that have come up from the Red River and are using the Pool area. The water area becomes rather salty when not much water is flowing into the lake from the Forest River.

III. Refuge Maintenance.

The grass was cut on the lawn and around the buildings, the buildings were all hoed around for fire protection and a brood census taken over the area of the waterfowl and other inspection work done as to the regulating the water and so on.

2. Billing Lake.

B. Water Conditions. This area was gone over on July 14, 1946. The water level was about 6" below the spillway level then. This is a rather shallow water area and it has gone down much during the past month since but little moisture has been received. The water seemed to be fresh although ~~not~~ not much rain was received since earlier this year.

II. Wildlife.

A. Migratory Birds.

1. Population and Behavior. A fair number of birds were seen on the area. It is a good small area since there is good cover along the shore, some cover out over the water area at places and food in the water for them and plenty of grain in the fields from the middle of the summer on.

2. Food and Cover. Coontail, clasping leaf pond weed, some sago pond weed and the seeds off of the round stem rushes furnish the food for the fowl. There is also a good supply of soft shelled snails in the water that many of the fowl feed on. The snails may be one of the main reasons that so many canvasbacks were seen on the water area. There is good cover along the edge of the water and on out into the water on the north end of the water area and the round stem rushes are growing in rather dense clumps at places out in the water and they furnish good cover out over the water. The waterfowl not only want food in a water area but they want cover over the area if they are going to make much use of it

B. Upland Game Birds. No upland game birds were seen on the area when the brood census was taken except one rooster pheasant. It is estimated that there are about 15 pheasants on the area now and 20 partridges (Hungarian). There are only Chinese Pheasants in this District.

111. Refuge Maintenance.

This area was inspected, part of it gone over, the brood census taken and the dykes and spillways inspected to see that they were in good shape. The birds will do very good on this area this summer if the water level does not become extra low. Most of these Easement areas (water) are rather shallow and they must have some rain during June to stay up well during the rest of the summer which is as a rule rather dry.

3. Buffalo Lake Refuge.

1 General.

B. Water Conditions. This area was inspected on July 10, 1946 and part of it gone over. The water was about 6" below the outlet spillway and it seemed to be rather fresh. The waterfowl use the south east part of the water area as a resting place during their migrations mainly. They use the north part as a place to feed and to rest where there is cover out over the water.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. There was comparatively very few waterfowl using this area when the inspection was made. There were some as shown on the attached forms using the north west part where there is good cover out over the water and food growing out in the water. The south part is just an area to rest on of a spring and fall mainly. It is believed that the conditions are getting better each year on this water area so the birds will use it more and more if it keeps improving.

2. Food and Cover. The pond weeds, round stem rushes, snails and other things furnish food for the waterfowl on the north west end of the water area. The ducks and geese have to get much of their food out of the fields or other areas of a spring and fall. There is good cover along the shore and out in the water on the north west end, of phragmites, round stem rushes, and other plants.

B. Upland Game Birds.

1. Population and Behavior. A few Chinese pheasants, sharp-tail grouse and Hungarian Partridge are using this area. They nest on and around the protected area and feed here and there around in the locality during the winter where ever they can get the best supply of food. It is a difficult job for them to get enough food here during the winter when it is cold and the snow is deep. A few pheasants were seen and heard on the area when the inspection was made.

2. Food and Cover. There is grain in the fields, corn in the fields where they raise corn, weed seeds, insects and other natural foods that are available all over this district. The cover is fair along the shore here and there on the south end of the land area of grass and weeds. It is better on the north and west part of the land area of weeds, brush and the hills stop the winds much.

111. Refuge Maintenance.

The grass was cut around the cabin, raked up, hauled out, the cabin was hoed around, a brood census was taken of the waterfowl and the Refuge checked over in general.

4. Brumba Lake Refuge.

B. Water Conditions. This area was checked over on July 16, 1946. There is only a small water area now since the ditch was made through it to lower the water level of Rock Lake Refuge. It is not possible go give the level in reference to the spillway since the ditch has been made.

11 Wildlife.

A. Migratory Birds.

1. Population and Behavior. Only one brood of young ducks and 30 other waterfowl were seen when the inspection was made. The birds use it now as they would any other small pot hole to rest some on and feed for a time.

2. Food and Cover. There is a little food of coontail, round stem rushes furnish some seeds and the waterfowl feed in the fields and other areas to get the food they need. There is a little cover on the north end of high grasses, weeds and a little low brush.

B. Upland Game Birds. No birds have been seen on the Refuge for some time. It is estimated that there are 20 Chinese pheasants, 20 Hungarian Partridge and possibly a few sharp-tail grouse. There are not many on the Refuge though. There is fair cover of grasses, ^{and} weeds during the summer time. The tree strips furnish good cover the year around and some food of weed and grass seeds.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few muskrats, badgers and mink that use the Refuge area, There are a few skunks that use it some also.

5. Johnson Lake Refuge.

1 General.

B. Water Conditions. This area was inspected on July 9, 1946. The water level has gone down some since last spring but not so much. The water was comparatively fresh. More rain was received in this locality than has been received in other parts of the District according to reports from the people living in this locality.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. This is one of the better waterfowl areas and many use it of a spring and fall and a fair number stop to nest on and around it. This is one of the north and south chain of Refuges that the waterfowl use as a stopping place of a spring and fall. Of course there are other water bodies in this locality that they use also.

2. Food and Cover. There is a fair amount of submerged aquatics growing out in the water, round stem rushes furnish seeds and there are some minnows and snails that the waterfowl feed on. They feed in the fields of a fall mainly though.

The cover is good or just right along the east side and on the north end of phragmites, cattails, roundstem rushes and other plants growing out in the water from a distance of two rods to 15 rods. The cover is good out on the land of brush, grass and weeds.

B. Upland Game Birds.

1. Population and Behavior. No upland game birds were seen on the inspection when the brood census was taken of waterfowl and work done cleaning up around the cabin or small house. Just a fair number of about 100 Chinese pheasants, 100 Hungarian Partridge, 100 sharp-tail grouse and 50 pinnated Grouse use this area it is estimated. This is the best area for the grouse in this District.

2. Food and Cover. There is a good supply of grains, some corn and all of the natural foods available for the birds here during the warmer months when there is no snow on the ground. During the winter months the birds of course eat corn and grain if they can get it but they still have weed seeds, grass seeds and berries that they can find on the south hill sides. All of these birds feed much on sweet clover seeds as well as other seeds.

There is good cover of brush, grass, weeds, the hills and the plants sticking above the ice out on the lake during the winter. There is plenty of good cover during all of the warmer months.

C. Big Game Animals. There are some deer that use this area (white-tail). When making the brood count on July 9th., one old mother and her young one was seen and then two other fawns were seen at a different place. So, these deer should increase if they are left alone. It is a suitable area for a fair number of them to do well on.

D. Fur Bearing Animals, Predators, Rodents and Other Mammals. A few fox, mink, weasels, badgers and skunk use the land area of the Refuge. There is a fairly large population of muskrats that use the water area and the shores of the lake. During the summer, they stay out in the water area and make their nests in the heavy growth of plants. These muskrats grow rather large on this area. This is a good muskrat area.

6. Kellys Slough Refuge.

1 General.

B. Water Conditions. This area was inspected on July 14th. The water was running over about 1/2 of the small spillway. Although the period has been dry, the water was flowing over the spillway about as in the past and it seemed to be rather fresh. If the level becomes low, the water will become rather salty.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. When the brood count was made on July 14th., there were about 100 black terns, 30 unidentified ducks and three broods of young ducks. The waterfowl use this area of a spring and fall. Many large flocks of geese have been seen in the past feeding in the fields and resting on the water area of a fall.

2. Food and Cover. There is some food on the water area and in it of sago pond weed mainly and prairie bulrushes along the shore line. The waterfowl feed in the fields much of a spring and fall.

There is no cover out over the water made by plants growing in the water. The weeds and grass grow to the water edge around much of the lake and make good cover on the land. For the waterfowl to really use an area, they want fair to good cover out over the water as well as some food to be found in the water.

B. Upland Game Birds. It is estimated that there are about 30 Chinese Pheasants and 100 Hungarian Partridge using the Refuge area now. We see a few of the birds on the Refuge at times but they just do not increase. The area has some brush and trees on it for them to use during the winter but food is hard to find then and only the strongest survive the cold winters.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. When the inspection was made a few muskrats were seen. It was in the evening. There are a few mink, raccoons, skunks and Richardson Ground Squirrels that use the area. The squirrels do not increase on the area or around it. It is supposed that they do not like the gumbo soil to live in and then it may be a little damp for them in this locality. Permits are issued for local people to trap each fall in the usual way. It has been reported that foxes use the area some during the winter. It is supposed that they come in from other areas mainly.

7. Lac Aux Mortes Refuge.

1 General.

B. Water Conditions. The water level ~~level~~ of the lake has staid up well during this dry summer. The level was above the spillway level during the first part of this report period. At the end of August, the level was down to about 13" below that of the real spillway level.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. A very careful brood census was taken of this area on July 11th. But few broods of young ducks were seen on the area then. There was a very large number of female ducks moulting that had no young and were not nesting it was judged from the way they acted. It was estimated that there were about 20,000 ducks on the area at that time. A little later on in August, it was estimated that there were only about 1/2 as many waterfowl on the water area as there was on July 11th. They had moved out on to other areas and were commencing to feed in the grain fields some.

2. Food and Cover. There is a great supply of sago pond weed, clasping leaf pond weed, a fair amount of smart weed, some river bulrush and other plants growing out in the water that furnish much food for the waterfowl.

The cover is very good out over the water of cattails, phragmites, round stem rushes and other plants. In fact it would be much better if there was only about half the cover out over the water that there is. The cover covers so much of the water area and is so thick and dense that it takes much time to get out of it and back to the shore when patrolling the water area, picking up the dead birds and burying them and studying the conditions. The Sago pond weed was so thick that it was very difficult to get a boat through it when using a boat motor.

3. Botulism. The Water Area was first patrolled on July 25th. Then, a total of 26 waterfowl were picked up dead. 21 of these were Franklin Gulls. More were found on August 2nd. and then the number of dead found, began to decrease some. Most of the loss was around a fairly long island on the West side. Each time a few dead birds were found here and there out on the water and a few were found on the muskrat resting places which were made by the rats piling up rushes mainly. All of the dead birds were picked up and buried that were found. It is rather strange what would cause the botulism to start as it did and seemingly around the one island. It then spread some.

The water was fresh, it was at a high level and the wind has been blowing hard about two or more times a week during the period. A number of the days have been very hot but the nights have been very cool or from 60 to below 50. The botulism does not increase so rapidly when the nights are cool. It was stated that the wind did blow. It blowed very hard many days. It was noticed many places out on the lake where there was sago pond weed hanging on the rushes that was at least 2 1/2 feet above the water level. The wind did blow a number of times at the rate of about 50 miles per hour.

Below the number of waterfowl and animals found dead on the water area and on the land have been listed:

Ducks	173
Coots	58
Franklin Gulls	63
Shore birds	10
Total of	304.

B. Upland Game Birds.

1. Population and Behavior. No upland game birds have been seen on the area this summer although much of it has been gone over and around. It is estimated that there are 80 Chinese Pheasants, 100 Hungarian Partridge and possibly a few sharptailed grouse using the area. The population is very low though. Last winter was very hard on these birds due to the early and deep snow and then the much cold weather.

2. Food and Cover. There is plenty natural food and grain for these birds during all of time except when the snow is deep. Then they have a hard time finding enough food. The cover is fair of clumps of trees and brush, the banks along the lake shore and high weeds and grass.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. A few fox use the area at times during the summer, a fair number of skunk, weasels, mink and many muskrats. The rats are very large and are to be seen during the late summer all of the water area with their young. They can be seen resting on piles of round stem rushes mainly that they have piled up. By the end of August some houses 2' or more above the water level had been piled up. The muskrats all seemed to be very healthy.

111. Refuge Maintenance.

The grass has been cut around the buildings, the buildings have been hoed around twice this summer and the grass and weeds raked up and hauled away. This has been done to improve the looks of the building site and for fire protection. The buildings have been cleaned up and swept out. The water area has been patrolled with a boat with a motor on it a number of times, the dead birds picked up and buried and other work done.

8. Lambs Lake Refuge.

1. General.

B. Water Conditions. This area was checked on July 16, 1946. The water level was about 2' below the spillway level. The water seemed to be fresh. Of course the wind has been moving the water around much and some rain was received recently.

11 Wildlife.

1. Population and Behavior. The waterfowl use this area mainly of a spring and fall as a resting place and a few of the ducks stay to nest on and around the the water area. There are some thick clumps of roundstem rushes where it is believed some of the ducks may nest. The birds seen on the area are listed on the attached forms.

2. Food and Cover. There was some sago pond weed and coontail growing in the water and the round stem rushes were fruiting fairly heavy. These plants were furnishing food for the birds and there was some insect life on and in the water.

The land area has been pastured very little this summer and there was good cover along the shore line. There was also good cover on the north end of the water area of round stem rushes. There were also prairie bulrushes growing at places along the shore.

B. Upland Game Birds.

1. Population and Behavior. It has been estimated that 20 partridges and six Chinese Pheasants are using the area. No upland game birds were seen on the Refuge when the inspection was made. The birds that use this area during ~~this~~ the summer must move to the east or south for shelter during the winter. Available food is difficult for them to get when the snow is deep.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few skunk, foxes, weasels and badgers that use this area some. Trapping is done of a winter under permit on this area and some of the animals are taken and others wander on to other lands and are trapped. For those reasons these animals do not increase on the protected area.

III. Refuge Maintenance.

The dam and spillway were inspected, the brood count was made and the water area was checked over to see what plants grow in the water and furnish food for the waterfowl. The dam and spillway were left in good shape.

9. Little Goose.

1 General.

B. Water Conditions. This Refuge was inspected on July 14th. The water level was about 1' below the natural spillway. The water seemed to be fresh. For some reason, much of the clasping leaf pond weed was dying or dead along out in the water on the north west end. The water is quite deep near the dam or dyke (about 8 to 10' deep).

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. A fair number of ducks and geese use this small water area of a spring and fall as a stopping and resting place. At times, fair numbers of geese have been seen to fly off of the water area. A few ducks nest on the land on the north east end of the water area and raise their young on the water area then.

2. Food and Cover. There was little duck weed growing on the shore waters on the north west part of the water area, ~~clasping leaf pond weed~~ and clasping leaf pond weed. Of a spring and fall the ducks use the water area as a resting place and then feed in the fields much. In the past they have eaten much grain in some of the local fields in the fall.

There are no upland game birds that are using this area that we know of and for that reason, no report is being made of or for them. The area is closely pastured and there is but little cover on it for these birds so they do not use it.

111. Refuge Maintenance.

The brood census was taken, the dam and spillway were inspected and considerable of the area was gone over. If it remains dry, it was noticed where rocks can be hauled to repair the upstream side of the spillway this fall if time is available to do it.

10. Minnewastona.

1. General.

A. Water Conditions. This area was inspected on July 18th. The water level was rather high or about the same as it has been as a rule in the past. The weather has been rather dry this ~~xxxx~~ summer but the springs seem to be keeping the water level up.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. Six Franklin Gulls were seen flying over the water area only. None were seen on the water. The water is rather deep in this small water area and only a few diving ducks use it as a rule. When it is windy at times and cold, many ducks of all kinds use it for a time for the shelter they can get there.

2. Food and Cover. There is a little sago pond weed growing along the shore, much coontail and round stem rushes along the shore that furnishes the food for the birds. There is a good supply of soft shelled snails and some minnows in the water for the divers.

The cover is good along the shore of rushes, weeds and brush. This kind of cover is not so suitable when the water area is all surrounded by trees that have raccoons and skunks to prey on the birds.

B. Upland Game Birds.

1. Population and Behavior. The birds use this area mainly as a resting place during the unfavorable weather and a few of them nest on it. They do fly out of the area much and feed other places where there is grain and more insect life available. The sharp-tail grouse and Chinese Pheasants do come into the brush and timber covered area of a fall and winter to feed on seeds, berries and buds.

2. Food and Cover. There are the insects, seeds and berries that furnish food for the birds and also the buds. They have to feed on other areas also. The cover is very good of brush, weeds and grass. There is but little open grass land on the whole area. This is a poor Refuge for the waterfowl and upland game birds. It would be as well if it was not a protected area for use that the birds make of it.

11. Pleasant Lake.

1 General.

B. Water Conditions. This area was inspected on July 10, 1946. The water level was about 6" below the low spillway. The water seemed to be fresh. This is not a very large water area but the waterfowl all make much use of it.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. There is a rather small and unimportant looking area of water on this Refuge but the waterfowl use it much. The geese and swan and large numbers of ducks use it of a spring and fall. During the summer a fair number of ducks, gulls and shore birds use it. The shore birds seem to find much food in the soil near the water edge and out in the grass in the soil. A few ducks nest on and around the Refuge and bring their young to the water area to grow up.

2. Food and Cover. There was some soft shelled snails in the water, some insect life in and above the water and pond weeds that furnished food for the waterfowl. They also had to feed in the fields and on other water areas.

The cover was good on the north end of the land area of brush, weeds and phragmites. Cattails, phragmites and other water growing plants covered about 2/3 of the water area and furnished very good cover out over the water.

B. Upland Game Birds.

1. Population and Behavior. No upland game birds were seen when the area was gone around and part of it gone over. It is estimated that there was 20 Chinese Pheasants and 30 Hungarian Partridge that were using the area some on July 10th. A few birds nest on this area and stay on or around it during the summer and winter. They have to get part of their food on other areas.

2. Food and Cover. There is a fair amount of natural foods on the land part of the refuge during the warmer months and grain in the fields that border on the grass land surrounding the water area. The birds have to feed on other areas and around the farm barns during much of the winter time. The cover is very good of brush, high grass, weeds, the crops and the uneven land stops the winds.

12. Prairie Lake Refuge.

1 General.

B. Water Conditions. This area was inspected and a brood count taken on it on July 16, 1946. There was only about 1 acre area of water on the Refuge. The water was about 30" below the spillway level. The water seemed to be fresh and the ducks were doing well that were on it.

11 Wildlife.

A. Migratory Birds.

1. Population and Behavior. Only a few birds were seen on the area when the inspection was made but the number was large when it is considered that the water area was very small. By the end of this period the water area is apt to be dry in which case the ducks would have to move to some other place with water in it. A fair number of birds use this area of a spring when it is full of water but of a fall there is not much water or the area is dry. Not many waterfowl use it of a fall.

2. Food and Cover. There was a little food in the water of submerged aquatics, weed seeds and the insects furnish a little food. The ducks have to feed on other areas much. The cover was good along the shore for about a rod of different weeds and high grasses.

111. Refuge Maintenance.

A brood count was taken on the water area of the Refuge on July 16th. The dam and spillway were inspected and left in good shape.

13. Rose Lake Refuge.

1 General.

B. Water Conditions. This area was inspected on July 13th. The water level was about 1' below the spillway level. The water seemed to be fresh. It is supposed that since the winds have moved the water much during this summer, this has helped very much keep the water clear and fresh.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. This is a rather small water area of about 70 acres but there was a rather large number of ducks on the water as is shown on the attached form. The waterfowl use this area as a resting place of a spring and fall and feed out in the fields especially of a fall.

2. Food and Cover. There was some sago pond weeds and coontail in the water and a good supply of soft shelled snails that furnished food for the ducks. The cover was good along the shore of high grass, weeds and brush and on the north west end there were clumps of round stem rushes growing out in the water that furnished some cover.

B. Upland Game Birds.

1. Population and Behavior. It is estimated that about 20 Chinese Pheasants and 50 Hungarian Partridge were using the Refuge when the inspection was made. There are a few upland game birds using the area but it just seems impossible for them to increase and stay that way any.

2. Food and Cover. There is plenty of the natural food for the birds during the months when the ground is not covered deep with snow such as sweet clover seed, weed seeds, insects and grain in the fields. They live off of seeds and grain when the snow is on the ground but it is hard to get at times.

The cover is good except for periods of extra cold weather and deep snow of brush, high grass, weeds and the low ridges. The birds just do not increase and stay numerous on this prairie area due to the natural enemies and severe winters.

- C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few mink, weasels, badgers, skunks and some muskrats were seen for the first time out on the water area when the area was carefully checked ~~of~~ over and the brood count made.

111. Refuge Maintenance.

The dam and spillway were checked over and were left in good shape and a brood count was made of the waterfowl. The area will again be gone over this fall and holes filled up on the dyke. Animals always dig some holes there of a late summer and fall.

14. Rock Lake Refuge.

1. General.

- B. Water Conditions. The brood count was taken on the area on July 11th. There is sufficient water in this water area yet although the summer has been dry and much of the spring run-off flowed to the north where the dyke washed out this spring. The ditch is now completed from the south end of Rock Lake on through the Brumba pool and the level in the lake should be about the same the year around if there is a fair run-off and the normal rainfall is received of a summer.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. Not many waterfowl were on the water area during the summer. The most of them used the east end of the area where the water was more shallow and there was more food. A fairly large number of geese, ducks and some swan have been using it of a spring and fall.
2. Food and Cover. The pond weeds (sago) and coontail are the only submerged aquatics that have been noticed in the water that furnish food for the waterfowl. They feed in the fields much of a spring and fall. It is believed that the food supply will increase since the ditch has been completed and the level should remain about the same the year around.

The cover is good along most of the shore line of weeds, grasses and some brush. There is but little cover out over the water on the main body of water. The cover is good out over the water east of the north east dyke.

B. Upland Game Birds.

- 1 Population and Behavior. It is estimated that there were at the end of this period about 25 Chinese Pheasants and 100 Hungarian Partridge. They use this area during the summer period but must then move on to other areas during the winter months or be hard pressed to get enough food when the snow is ~~f~~ deep and drifted.

2. Food and Cover. There are the insects that furnish food during the summer months, weed seeds, grass seeds and grain in the fields. They feed mainly on grain, berries and weed seeds during the winter months.

The cover is good except during the winter months of grass, weeds, some brush and the grain fields. Some corn is raised in the locality and it furnishes some cover for winter.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. The population of these animals is the same or about the same as it was last year and the year before. There are a few, mink, weasels, skunk, badgers and muskrats use the banks to make their homes in. The muskrats will increase if more plants grow out in the water and furnish them more food and material for making winter houses and etc.

111. Refuge Maintenance.

The ditch has been completed from the south end of the lake on south through Brumba pool so the water level in Rock Lake will be kept about the same the year around, the dyke was repaired on the north ^{east} end of the pool where it was washed out last spring, a natural spillway was completed on the south end of the dyke on the north east side of the lake, the dyke was made longer and put in shape on the east side of the north end of the lake and a dam or stop-log was put in the ditch from the south end of the Rock Lake and other work was done. A dragline was used to do this work, three trucks and other equipment. It has taken practically all of this summer period to complete the work described above. All of this work should improve the use of the area for the wildlife and they should put it to very much ^{use}. The water level has been higher than it should be in the past.

15. Snyder Lake Refuge.

1. General.

B. Water Conditions. This area was inspected on July 16, 1946. The water was about 10" then below the spillway level. By the end of August it is believed that the level would be about 16" below the spillway level. The water in this pool is rather deep and it takes it quite a while to go down much.

A. Migratory Birds.

1. Population and Behavior. The waterfowl do not use this area much during the summer months. A few canvas-backs, ruddys, coots and redheads nest on the north end and raise their young as a rule. A few other waterfowl come on to the water area late of a summer when the other small pot holes have dried up. There is no cover out over the water area on the larger south part and it is not used much except during the migration times.

2. Food and Cover. There are some sago pond weed, coontail and roundstem rushes growing in the water (mainly on the north end) that furnish food for the waterfowl. The diving ducks feed on snails, salamanders and other life they can get from the water. The other birds have to feed in the fields of a fall and on other areas. As a rule, quite a large number of waterfowl (ducks) are using the north part of this area of a summer but only a few were seen on it when the inspection was made.

The cover is good along the shore line of weeds, grass and some brush is growing out on the land on the east side of the larger part of the water area. The north end of the water area has fair cover out over the water area only.

B. Upland Game Birds.

1. Population and Behavior. It is estimated that about 20 Chinese Pheasants and 50 Hungarian Partridge were using the area some at the end of this period. These birds use the refuge area some during the summer period and then fly to the south about a 1/2 mile where there is good winter cover.

2. Food and Cover. There are plenty of insects ~~life~~, grain and seeds available during the summer. The birds feed on seeds of grasses, weeds, on the grain they can find and berries during the winter periods. There is good cover to the south of the refuge a short distance or about 1/2 mile. There is plenty of summer cover on the Refuge for the birds to use.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are some Richardson Ground Squirrels, badgers, mink, weasels that use the land area of the Refuge. There is a fair number of muskrats that use the north end of the water area. There is more material for houses on the north end and more food and the water is about the right depth for their use.

16. Sibley Lake Refuge.

B. Water Conditions: This Refuge was inspected and a brood count made on July 19th. The level was about the same as it was a year ago. It could not be noticed that it had gone down any in particular. In this locality there has been a number of good rains received during the middle of the summer.

1. Wildlife.

A. Migratory Birds.

1. Population and Behavior. A fair number of waterfowl were seen on the water area as is shown by the attached forms. They use this Refuge much as well as other surrounding water areas. During spring and fall migrations they feed much in the fields. The most of the field feeding is done of a fall though. After the summer waterfowl feed in the water area there is not so much food left for those stopping there in the fall.

2. Food and Cover. There is some sago pond weed growing in the water, duck weeds and the seeds of the rushes furnishes some food for the waterfowl. They also feed on other water areas and in the fields.

There is good cover on the land for the birds that nest there around the west and north part of the water area. There is good cover of round stem rushes, prairie bulrushes, cattails, phragmites and other plants growing out over the water.

B. Upland Game Birds.

1. Population and Behavior. It is estimated that there are about 20 Chinese Pheasants, 50 Hungarian Partridge, a few sharp-tail grouse and

about 10 Pinnated grouse using the area at the end of this period. The upland game birds are very scarce in this whole District No: 2 due to the deep snow during the long last winter when they could not get food. Their numbers will increase on this area if conditions become favorable during the winter time since this is a fairly suitable area for upland game birds.

2. Food and Cover. There are all of the natural foods for the upland game birds on and around this area and then there are the hills where the birds are able to get seeds, berries and gravel in the winter when there is much snow as a rule. Some places on the south hillsides are always bare or do not have so much snow.

The timber on west side of the Area furnishes cover and the rough land helps stop the winds. The high grasses out in the lake furnish cover during the winter. There is plenty of cover for the birds during the summer of weeds, grass and the crops.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few mink, weasels, foxes that use the land area of the Refuge. A fair number of muskrats use the water area of the refuge. They build houses mainly out in the lake of round stem rushes, cattails and other plants that are growing out in the water

17. Silver Lake Refuge.

1 General.

B. Water Conditions. This Refuge was inspected and a brood count taken on it on July 11th. The level of the water area had gone down some since earlier in the summer but the water was fresh. No algae was noticed in the water at all. In past years by the middle of July, there is often much green algae in the water and blue algae along the water edge that is poisonous to birds eating it. We have had much wind during the summer and it may be a great help keeping the water fresh.

11. Wildlife.

A. Migratory Birds.

1. Population and Behavior. Not so many waterfowl were seen on the water area during the brood count. The waterfowl nest on other water areas where there are better conditions for them to raise their young and then many of them come to this area for a stopping and resting place when the young are grown or almost so. This area does not have a large summer population.

2. Food and Cover. There is some round stem rushes, some sago pond weed and duck weeds that furnish food for the waterfowl. They must feed on other areas and in the fields to get enough food. Waterfowl stop on this area of a spring and fall mainly.

B. Upland Game Birds.

1. Population and Behavior. It is estimated that about 50 Chinese Pheasants, 80 Hungarian Partridge and possibly a few sharp-tail grouse were using the area at the end of August.

2. Food and Cover. There are all of the natural foods and grain available for the birds during the summer months. During the winter they depend on sweet clover seed, weed seeds, grain and buds.

There cover is good during the summer of weeds, brush and the grain standing in the fields. During the winter there is the uneven land, weeds, brush and the small timber which stops the wind some.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. There are a few mink, weasels, badgers, skunk and foxes that use the land area of this Refuge. A few muskrats use the north end of the water area and the Mauvais Coulee.

18. Woodlake Marsh.

1 General.

B. Water Conditions. A brood count was taken on the water area of this Refuge on July 19th. The water level was about 1" above the level of the spillway on that date. The area was again inspected on August 18th. The water was about 6" below the level of the spillway. The spillway and dam or dyke were in good condition. The water was fresh.

11. Wildlife.

A. Migratory Waterfowl.

1. Population and Behavior. Only a few birds were seen on the area when the inspection was made. They use it of a spring and fall as a feeding and resting place in farly large numbers. Many mallards, especially, use it of a fall.

2. Food and Cover. There is a good supply of the duck weeds and coontail growing in the water that furnish food. Other foods that the birds need must be secured from other areas. They do field feeding of a spring and fall mainly any way.

B. Upland Game Birds.

1. Population and Behavior. It is estimated that about 20 Chinese Pheasants, 30 Hungarian Partridge and a few Sharp-tail grouse were using the Refuge at the end of August. The birds nest out on and around the Refuge and move into the trees and brush for cover and shelter.

2. Food and Cover. There are the grass seeds and weed seeds, insects, buds and grain that furnish the food for these birds. The few predators and Indian dogs prey on the birds. The cover is good of grasses, weeds, the uneven land brakes the wind and also the brush and small timber.

C. Fur Bearing Animals, Predators, Rodents and Other Mammals. A few skunk, weasels, mink, Richard Ground Squirrels and muskrats use the Refuge Area. The muskrats make their homes in the banks of the shore mainly. The rats on this water area are not over 1/2 as large as those on Lac Aux Mortes. It is supposed that this difference in size is due to the fact that there is a great supply of food on the Lac Aux Mortes Area and a lesser supply on this small water area.

19. Stump Lake Refuge.

1. General.

B. Water Conditions. This area was inspected and a brood count taken on it on July 19th. The water level had gone down so much that the lake bottom was dry between the north island and the main land and also the south island. If the dry weather continue by fall it may be possible to drive to the islands.

11. Waterfowl.

A. Migratory Birds.

1. Population and Behavior. There were only a very few ducks and other waterfowl on the area when the inspection was made. There were a few ducks and about 2000 small shore birds. When there is plenty of water around the land part of this Refuge, the waterfowl use the water area much of a spring and fall mainly.

2. Food and Cover. There is little or no food in the water on this Refuge now. When the level is higher and the water fresher, there has been a good supply of sago pond weed growing in the water and other food was there for the ducks, large numbers of geese and swan ~~to~~ feed on. There is no cover out over the water for the birds. There is fair cover on the islands and peninsulas of brush, high grass and weeds. The islands and peninsulas land areas are higher than the water and stop the winds much.

B. Upland Game Birds.

1. Population and Behavior. It is estimated that there are at the end of this period about 10 Chinese Pheasants and 20 Hungarian Partridges using the land area of the Refuge some.

2. Food and Cover. There is a good supply of insect life during the summer, weed seeds, grass seeds and grain in the fields for the birds to feed on. During the winter they have to depend on berries, weed seeds, buds and the grain that can be found in the fields and in straw piles that have been opened up.

Report completed:
September 5, 1946

Signed Wesley D. Parker.
Refuge Manager.

P. S. There were not near so many waterfowl on these Refuges this period as there have been during similar past periods. We are sure the hatch has been very small on and around all of the Refuge compared with past years good hatches.

Patrolman Torkildson has been working on the construction and repair work since the last of April on the Rock Lake Refuge. Mr. Torkildson made the brood counts on Rock Lake Refuge, Snyder and Brumba. All of the other inspection work and maintenance as reported has been done by the Refuge Manager. Not all of the work has been done that should have been completed but as much of the work has been done as possible.

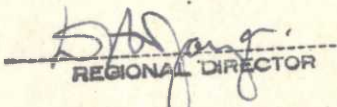
During the last week of August, Patrolman Torkildson was not working on the Rock Lake ditch job. During that week he went over, inspected the dams and spillways, straightened up marker posts and put new markers where they were needed (bringing back the old ones to the Sullys Hill Preserve) on the following Easement Refuges:

Billing Lake	Prairie Lake
Lake Ardoch Refuge	Lambs Lake
Kellys Slough	Rose Lake.
Little Goose	

The control Gates were closed tight on the Ardoch Lake and the downstream side of the control gates were dry. The downstream side of the control gates were cleaned good and painted good with good black paint that was recommenced for use by the office. The markers will be checked over on all of the other Easement Refuges as soon as we have time to get them checked over.

Much care has been taken making out this report. It is correct in every way to the best of our knowledge. There are a number of pictures at the end of this Narrative which furnish much information as to what is being done on the Refuges in the line of the duck count by use of the plane, the dragline working on the Rock Lake ditch, the part of the ditch ^{there} has been completed and other pictures showing the plant growth and conditions on the various areas as has been explained below each of the pictures. It can be seen from the picture of the Forest River above the Ardoch Refuge that there is a very little water now flowing on towards the Refuge. More than that tiny stream evaporates before it reaches the Ardoch Pool. The last two pictures show that there was but very little water left in the Salt River on east of the Ardoch control gates. The gates have been closed tight since July 20, 1946 but the level of the pool has been going down some since then.

APPROVED:


REGIONAL DIRECTOR

SEP 18 1946

WATERFOWL

Refuge Lake Ardoosh Months of May 1st. to Aug. 31, 1946.

(1) Species Common Name	(2) First Seen Number Date		(3) Peak Concentration Number Date		(4) Last Seen Number Date		(5) Young Produced Broods Seen Estimated Total		(6) Total Estimated for Period
	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									
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck Unidentified					6 July 16th.				4000 3000 2500 5000 100 200 400 2500 2000
IV. <u>Coot:</u>					10				2000

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....21,700

Ducks.....

Peak waterfowl numbers.....20

Coots.....

Areas used by concentrations.....

The brood census was taken on July 16th. and that is the date the number of birds that were seen. Of course there were more birds there on other dates but we were not there to see them.

Principal nesting areas this season.....This is not a nesting area.

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 Lake ArdoohMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										100
Eared Grebe										80
White Pelican										100
Double-crested Cormorant										100
Great Blue Heron										50
Black-Crowned Night Heron										100
American Bittern										80

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u>					
Mourning dove					
White-winged dove					300
IV. <u>Predaceous Birds:</u>					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Reported by <u>Wesley D. Parker.</u>					

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.

WATERFOWL

Total Production:

Refuge... Billings Lake ... Months of May 1st to Aug. 31, 1948...

(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. Swans:									
Whistling swan									
II. Geese:									
Canada goose									
Cackling goose									
Brant									
White-fronted goose									
Snow goose									
Blue goose									
III. Ducks:									
Mallard								10	2000
Black duck								14	200
Gadwall					22	7/14, '48	2		200
Baldpate									200
Pintail					12		1	14	2000
Green-winged teal									100
Blue-winged teal					9		1	6	200
Cinnamon teal									
Wood duck									
Red head									
Ring-necked duck									
Canvas-back					117		18	204	1200
Scaup									1000
Golden-eye									
Buffle-head									
Ruddy duck									200
IV. Coot:							12	50	1000

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....8,100

Ducks.....248

Peak waterfowl numbers.....500

Coots.....50

Areas used by concentrations.....All of the Small Water Area.

Principal nesting areas this season.....Around the small water area where it has not been pastured on north end.

Reported by.....Nesley D. Parker.

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 Billings LakeMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Common Loon						7/14				10
Hared Grebe										100
White pelican										
Double-crested Cormorant										30
Great Blue Heron										50
Black-crowned Night Heron										30
American Bittern										50
II. Shorebirds, Gulls and Terns:										
California Gull										200
Franklin Gull										1000
Common Tern										200
Black Tern										200

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove				Refuge Billings Lake	50
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow				I. Water and Marsh Birds: Common loon Hairy Grebe White pelican Double-crested Cormorant Great Blue Heron Black-crowned Night Heron American Bittern	100

Reported by Wesley D. Parker

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.

WATERFOWL

Refuge Buffalo Lake Months of May 1st. to Aug. 31. 1946.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. Swans:									
Whistling swan						July 10th.			
II. Geese:									
Canada goose									100
Cackling goose									
Brant									
White-fronted goose									
Snow goose									1200
Blue goose									1200
III. Ducks:									
Mallard					44		8	170	5000
Black duck									
Gadwall									1000
Baldpate									1000
Pintail									5000
Green-winged teal									100
Blue-winged teal					6				200
Cinnamon teal									
Wood duck									
Red head									1000
Ring-necked duck									
Canvas-back									1000
Scaup									3000
Golden-eye									100
Buffle-head									
Ruddy duck									1000
IV. Coot:					50			100	800

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....21,700

Ducks.....170

Peak waterfowl numbers.....

Coots.....100 estimated

Areas used by concentrations.....North end of the water area.

The peak numbers of the waterfowl usage has not been given since it was inspected and the birds carefully checked on July 10th. The most of the waterfowl used the water area in the spring or first part of May as a resting and feeding place on their migration.

Principal nesting areas this season.....North end of Water area.

Reported by.....Wesley D. Parker.

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.

Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Buffalo Lake

Months of May 1st. to Aug. 31, 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Common Loon										100
Hared Grebe										200
White Pelican										200
Double-crested cormorant					4					100
Great Blue Heron										100
Black-crowned Night Heron										200
American Bittern										100
II. Shorebirds, Gulls and Terns:										
California Gull										1500
Franklin Gull										5000
Common Tern										200
Black Tern					60	July 10th.				500

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					150
IV. Predaceous Birds:	None of the birds listed on this form were seen on the area when the inspection was made except the black terns. Many of them come to rest on the areas of a evening and are soon gone again and they are not seen.				
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					200
Reported by.....					Wesley D. Parker.

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.

WATERFOWL

Refuge Brumba Lake Refuge Months of May 1st. to August 31. 1946.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						July 16th.			
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									
III. <u>Unidentified ducks</u>					30		15		
Mallard									1000
Black duck									400
Gadwall									400
Baldpate									1000
Pintail									50
Green-winged teal									50
Blue-winged teal									
Cinnamon teal									
Wood duck									
Red head									100
Ring-necked duck									100
Canvas-back									
Scaup									
Golden-eye									
Buffle-head									
Ruddy duck									100
IV. <u>Coot:</u>									500

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....\$700

Ducks.....15

Peak waterfowl numbers.....

Coots.....

Areas used by concentrations On the water area.

All of these reports are carefully made out and much thought put in on them. They are conscientiously made out. To make real reports out about the larger and more important areas, it would be necessary to be able to inspect and study them more often.

Principal nesting areas this season Not much nesting done is on this area. They nest around the shallow water pool.

Reported by Nealey D. Parker.

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 Bugaba Lake RefugeMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										10
Hared Grebe										50
White Pelican										
Double-crested Cormorant										20
Great Blue Heron										50
Black-crowned Night Heron										50
American Bittern.										
None of the birds listed on this sheet were seen on the area when the inspection was made. The most common of them have been listed to the left that it is known as this area as well as the other segments more or less.										
II. <u>Shorebirds, Gulls and Terns:</u>										
California Gull										600
Franklin Gull										1500
Common Tern										200
Black Tern.										100

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					

Reported by Wesley D. Parker.

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.

WATERFOWL

Refuge Johnson Lake Months of May 1st. to Aug. 31. 194 6.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						July 9th.			200
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									1000 1500 1500
Unidentified ducks	(They flew up at a distance of 200 yds. or more.)				50				
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					10		1	100	6000
								50	2000
								50	2000
								100	5000
								30	200
								80	500
								100	2000
								200	4000
									5000
								100	2000
IV. <u>Coot:</u>					30			100	2000

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....34,900

Ducks.....810

Peak waterfowl numbers.....

Coots.....100

Areas used by concentrations.....East side and north end.

Principal nesting areas this season.....They nest on the land all around the lake.

Reported by.....Nealey D. Parker

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 Johnson LakeMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										100
Hared Grebe										100
White Pelican										200
Double-crested Cormorant										200
Great Blue Heron										100
Black- Crowned Night Heron										300
American Bittern										200
II. <u>Shorebirds, Gulls and Terns:</u>										
California Gulls										5000
Franklin Gulls										12000
Common Tern										1000
Black Tern										1500

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons</u> : Mourning dove White-winged dove					200
IV. <u>Predaceous Birds</u> : Golden eagle Duck hawk Horned owl Magpie Raven Crow					400
Reported by <u>Wesley D. Parker</u>					

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.

WATERFOWL

Refuge Kellys Slough Months of May 1st. to Aug. 31. 1946.

(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. Swans:									
Whistling swan						July 14th.			1000
II. Geese:									
Canada goose									200
Cackling goose									
Brant									
White-fronted goose									
Snow goose									300
Blue goose									300
Unidentified Ducks.					30		2		
III. Ducks:									
Mallard							1	20	1500
Black duck									
Gadwall									500
Baldpate									500
Pintail								20	2000
Green-winged teal									100
Blue-winged teal									200
Cinnamon teal									
Wood duck									
Red head								10	
Ring-necked duck									
Canvas-back								15	500
Scaup									1000
Golden-eye									
Buffle-head									400
Ruddy duck									
IV. Coot:									1500

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....9,100

Ducks.....65

Peak waterfowl numbers.....It is not known since the area was inspected and birds checked only on July 14th.

Coots.....None that could be seen.

Areas used by concentrations.....They use the south and west part of the water area the most.

Principal nesting areas this season.....This is not a nesting area.

Reported by.....Wesley D. Parker.

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 Kellys SloughMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										50
Eared Grebe										100
White Pelican										100
Double-crested Cormorant										100
Great Blue Heron										50
Black-crowned Night Heron										50
American Bittern.										50

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					50
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Reported by...Wesley D. Parker.....					

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.

WATERFOWL

Refuge Lac Aux Mortes Months of May 1st. to Aug. 31. 1946.

(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			100	May 5th.	about				100
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose			1000 4000 4000						1000 4000 4000
III. <u>Unidentified Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck			8000 2000 1500 1500 3000 300 1000 2000 1000	July 25th. July 25th.			10 4 1 1 2 30 60		15000 4000 4000 16000 700 2000 5000 8000 15000 2000 5000
IV. <u>Coot:</u>			3000				20	1000	8000

(over)

SUMMARIES

Total Production:

Geese.....

Ducks...980.....

Coots...1000.....

Total waterfowl usage during period...23,000.....

Ducks - July 25th- 23,300

Peak waterfowl numbers...Swan & Geese on May 5th...9,100

Areas used by concentrations...All over the water area of 3,400 acres.

Principal nesting areas this season...On land all around the lake and some ducks nested on plant growth here & there over the lake.

Reported by...Wesley D. PARKER.

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 Lac Aux Mortes Months of May 1st. to August 31, 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon				July 25th.						100
Eared Grebe										300
White Pelican										300
Double-crested Cormorant										100
Great Blue Heron										130
Black-crowned Night Heron										1000
American Bittern										800

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					200
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
<p>There were quite a large number of Franklin gulls nesting out in the lake on the old plants and on the islands. Most of the gulls had left the water area by the first part of August. This area has been patrolled (water area) weekly from the 25 of July on to the end of this period.</p>					300
Reported by...Wesley D. Parker.					

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes) II. Shorebirds, Gulls and Terns (Charadriiformes) III. Doves and Pigeons (Columbiformes) IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.



Refuge Lambs Lake Months of May 1st. to Aug. 31. 1946.

(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. Swans:			July 16th.		
Whistling swan					
II. Geese:					
Canada goose					
Cackling goose					
Brant					
White-fronted goose					
Snow goose					
Blue goose					
III. Ducks:					
Mallard			57	6	84
Black duck					400
Gadwall					300
Baldpate					300
Pintail			10	2	400
Green-winged teal			8		100
Blue-winged teal					150
Cinnamon teal					
Wood duck					
Red head					100
Ring-necked duck					
Canvas-back					150
Scaup					
Golden-eye					
Buffle-head					
Ruddy duck					100
IV. Coot:			50	3	20
					500

WATERFOWL

Total waterfowl usage during period.....**2,500**

Peak waterfowl numbers.....~~Not known since area was checked~~
on July 16th. only.

Areas used by concentrations...

North end of the water area where there is cover over the water of round stem rushes mainly.

Principal nesting areas this season. All around the south part of small water area since it was not pastured during nesting period.

Reported by.....**Wesley D. Parker.**

White-fronted goose
Snow goose
Blue goose

- (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.

: 4003 . VI

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

MIGRATORY BIRDS
(other than waterfowl)

Refuge Lambda Lake Months of May lat. to Aug. 31, 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										20
Eared Grebe										30
White Pelican										100
Double-crested Cormorant										30
Great Blue Heron										30
Black-crowned Night Heron										20
American Bittern										40

None of the birds listed on this page were seen when the inspection was made. They do use it though.

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u>					(Nov. 1942)
Mourning dove					80
White-winged dove					
IV. <u>Predaceous Birds:</u>					150
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Reported by <u>Wesley D. Parker.</u>					

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.

WATERFOWL

Refuge Little Goose Months of May 1st. to Aug. 31, 1946.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total Estimated for Period
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	
I. <u>Swans:</u> Whistling swan						July 14th.			
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					2		None		800
									600
									600
									800
									50
					4				100
									100
									200
									800
									300
IV. <u>Coot:</u>									500

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period **4,850**

Ducks.....

Peak waterfowl numbers.....

Coots.....

Areas used by concentrations.....

Only the few birds were seen on the area when it was inspected. No peak numbers were listed since only the one inspection was made.

Principal nesting areas this season **This is not a nesting area.**

Reported by **Wesley D. Parker.**

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 Little GooseMonths of May 1st. to Aug. 31, 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										20
Hared Grebe										30
White Pelican										100
Double-orested Cormorant										10
Great Blue Heron										20
Black-crowned Night Heron										10
American Bittern										10

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					10
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
None of the birds were seen on the Refuge when the inspection was made and the brood census taken. The most of the water area is deep. It has no cover over the water.					100
Reported by Wesley D. Parker.					

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.

WATERFOWL

Refuge Winnemucca Months of May 1st. to Aug. 31. 1948.

[illegible]

(over)

SUMMARIES

Total Production:

Geese.....

Ducks.....10.....

Coots.....

Total waterfowl usage during period.....860.....

Peak waterfowl numbers.....

Areas used by concentrations.....

Not many waterfowl use this small water area surrounded by timber and brush. There is not much food in the water for them.

Principal nesting areas this season.....Very few ducks nest on or around this area.....

Reported by.....Wesley D. Parker.....

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 Minnewastons.

Months of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										10
Hared Grebe										15
White Pelican										10
Double-crested Cormorant										30
Great Blue Heron										20
Black-crowned Night Heron										10
American Bittern										
II. <u>Shorebirds, Gulls and Terns:</u>										
California Gulls										200
Franklin Gulls										600
Common Tern										300
Black Tern.										400

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					80
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					2
Duck hawk					6
Horned owl					150
Magpie					
Raven					
Crow					
The area was inspected on July 18th.					
Reported by Wesley D. Parker.					

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.

WATERFOWL

Refuge Pleasant Lake Months of May 1st. to Aug. 31. 1946.

(1) Species Common Name	(2) First Seen Number Date		(3) Peak Concentration Number Date		(4) Last Seen Number Date		(5) Young Produced Broods Seen Estimated Total		(6) Total Estimated for Period
I. <u>Swans:</u> Whistling swan						July 10th.			150
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									200 400 400
III. <u>Unidentified ducks</u>					40				
<u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					6 8 5		1 1 1	30 40 25	3000 400 400 3000 100 200 200 200 100 200
It should have been the best time to take the brood census since it was 6.40 to 8.00 P. M. It was calm and the light was good for seeing.									
IV. <u>Coot:</u>					20			50	300

(over)

WATERFOWL

Total waterfowl usage during period.....9,250

Peak waterfowl numbers

Areas used by concentrations All of the water area.

Principal nesting areas this season. This area is small and the waterfowl nest some all around it where it is not pastured heavy.

Reported by...Wesley D. Parker.

Blue goose
Snow goose

- (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 Pleasant LakeMonths of May 1st.to August 31, 1948.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon										10
Eared Grebe										30
White Pelican										100
Double-crested Cormorant										60
Great Blue Heron										100
Black-crowned Night Heron										150
American Bittern										100
</										

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u>					
Mourning dove					
White-winged dove					150
IV. <u>Predaceous Birds:</u>					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
The shore birds (curlews especially) stop on this area in fairly large numbers and feed by dipping into the soil where there is grass. This is strange that their should be a fair amount of food on the shore lands of this area and not on the other Refuges. The curlews are not often seen on the other Refuges.					
Reported by <u>Wesley D. Parker.</u>					

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.

WATERFOWL

Refuge Prairie Lake refuge Months of May 1st. to Aug. 31, 1946.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	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									
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					31	July 16th.	4	20	400 100 100 400 20 30 30 40 10
IV. <u>Coot:</u>									50

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....1180

Ducks.....25

Peak waterfowl numbers.....

Coots.....None

Areas used by concentrations.....Only a few waterfowl use this small area.

Principal nesting areas this season.....A few nest around on the Refuge in the grass land.

Reported by Wesley D. Parker.

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.

Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge.....Prairie Lake.....

Months of May 1st to Aug. 31, 1946.

[illegible]

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					

Reported by.....Wesley D. Parker.....

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.

WATERFOWL

Refuge Rose Lake Months of May 1st. to Aug. 31st. 194 6.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						July 13th.			10
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									200 1000 1000
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck					140		6	48	800 600 600 800 80 150 200 300 80
IV. <u>Coot:</u>					40			30	

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....6,020

Ducks.....83

Peak waterfowl numbers.....

Coots.....30

Areas used by concentrations.....~~The birds use the whole small water area.~~

It is believed that there were more young ducks on this area than there usually are.

Principal nesting areas this season.....~~They nest in the grass all around the water area.~~

Reported by.....Wesley D. Parker.....

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 Rose Lake Months of _____ to _____ 194

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon						July 13th.				20
Rare Grebe										30
White Pelican										50
Double-crested Cormorant										80
Great Blue Heron										30
Black-crowned Night Heron										40
American Bittern										30
II. <u>Shorebirds, Gulls and Terns:</u>										
California Gulls										300
Franklin Gulls										2000
Common Tern										200
Black Tern							100			400
(over)										

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					60
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					

Reported by... Wesley D. Parker

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes) II. Shorebirds, Gulls and Terns (Charadriiformes) III. Doves and Pigeons (Columbiformes) IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.

Refuge Rook Lake Refuge Months of May 1st. to August 31, 1946.

(1) Species Common Name	(2) First Seen Number Date		(3) Peak Concentration Number Date		(4) Last Seen Number Date		(5) Young Produced Broods Seen Estimated Total		(6) Total Estimated for Period
I. <u>Swans:</u> Whistling swan						July 11th.			
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									200 500 600
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck							1 2	40 60	5000 2000 2000 6000 100 200 100 1000 4000 1000 400 3000
<p>Most of the geese had moved northward before the beginning of this period. The canvas-backs and ruddys use this area much. The other waterfowl have used it mainly as a stopping place of a spring and fall.</p>									
IV. <u>Coot:</u>							3 1 3	100 40 50	1000

(over)

1000

SUMMARIES

Total Production:

Geese..... Total waterfowl usage during period **27,100**.....

Ducks..... **290**..... Peak waterfowl numbers..... **Along about May 5th. it is believed.**

Coots..... **None were seen.**..... Areas used by concentrations..... **The shallow water area east of the north dyke is where the largest numbers have always been seen.**

We have seen very few young coots on the Refuge this year. Only a few of the young have been seen. This early summer was a very good hatching period it seemed. It was dry and not extra cold. It may be that there was not enough water in the small pot holes for the young birds. We did have some cold nights about May 20th. that might have chilled the eggs of many.

Principal nesting areas this season..... **There was but very few young birds hatched out on this Refuge or any of the other basements according to the numbers we have seen. The ducks nest all around on the land some of this Refuge according to reports. Reported by Wesley D. Parker.**

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 Rock LakeMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon.					July 11th.					200
Hared Grebe										400
White Pelican										500
Double-crested Cormorant										300
Great Blue Heron										200
Black-crowned Night Heron										200
American Bittern.										200

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove					200
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow					200
<p>This is a open prairie area and the birds listed on this page use the Refuge only as a stopping place mainly. It is believed that some of the doves nest here and there on the ground. They nest mainly it is believed where there is medium sized brush most though.</p>					
Reported by <u>Wesley D. Parker.</u>					

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.

WATERFOWL

Refuge Snyder Lake Months of May 1st. to Aug. 31. 1946

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						July 16th.			50
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									100 200 200
III. <u>Unidentified ducks off at a distance.</u>					50				
<u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck							1 10 10 20 10 10 10 10 15 10	20 1500 1500 2000 100 200 1000 1200 100 800	2000 1500 1500 2000 100 200 1000 1200 100 800
IV. <u>Coot</u>							10		300

The waterfowl (ducks, geese and swan) come rather early this spring in numbers and left during April the most of them. Also, there just was not the number of ducks migrating this spring that there have been some springs. During the hatching season we used to drive along the road in places and seen many green-winged and blue-winged teal and along in about the first of June this summer none of the birds were seen in those places and there was but little water along the road sides in the ~~xxx~~ same places.

We remember very well one place where there was just a fair sized slough of about 5 acres and the road passed through it ~~in~~ three springs or early summer ago. There were at least 12 large broods of ducks on the water areas. This summer the areas are dry and the farmer has had a dragline dig a fairly deep hole to get water there for his cattle.

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....11,250

Ducks.....115

Peak waterfowl numbers. It is believed that the most of the ducks used the area during the first week in May. ~~XXXX~~

Coots.....10

Areas used by concentrations. They use the north west end mainly where there is more food (water is not so deep) and and fair cover over the water.

The pintails, mallards and blue-wing teal as well as some of the other ducks nest here and there all over the cultivated land as well as on other areas. They may nest on the cultivated areas much since they are more apt to avoid their enemies when nesting in the fields. Farmers reported to me that they had to plow up many nests in June in the fields. Many of the farmers stated they carefully moved the nests over when possible on to the plowed land or left a little area.

Principal nesting areas this season. The nest come on the north end and around it.

Reported by Masley D. Parker.

- (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.

MIGRATORY BIRDS
(other than waterfowl)

Refuge Snyder Lake

Months of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon					July 16th.					30
Eared Grebe										40
White Pelican										200
Double-crested Cormorant										100
Great Blue Heron										50
Black-crowned Night Heron										200
American Bittern.										100
II. <u>Shorebirds, Gulls and Terns:</u>										
California Gulls										1200
Franklin Gulls										4000
Common Tern										1000
Black Tern.										1000
No young were seen on the area of the birds listed on this page. The gulls do not nest here. They make the most use of it of a late summer as a resting place when feeding in the fields.										

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					80
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					200
Reported by... Wesley D. Parker.					

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.

WATERFOWL

Refuge Sibley Lake Refuge Months of May 1st. to Aug. 31. 1946.

(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. Swans:									
Whistling swan						July 19th.			100
II. Geese:									
Canada goose									200
Cackling goose									
Brant									
White-fronted goose									
Snow goose									300
Blue goose									400
This is a much used area by the waterfowl for the size of the water area.									
III. Ducks:									
Mallard							3	135	5000
Black duck									
Gadwall							4	110	2000
Baldpate							1	38	2000
Pintail									5000
Green-winged teal									100
Blue-winged teal									300
Cinnamon teal									
Wood duck									
Red head									1500
Ring-necked duck									
Canvas-back									3000
Scaup									200
Golden-eye									
Buffle-head									
Ruddy duck									1200
IV. Coot								100	1000

(over)

SUMMARIES

Total Production:

Geese.....

Ducks...280.....

Coots...100.....

Total waterfowl usage during period.....22,300

Peak waterfowl numbers...We do not know. A large number of waterfowl are on the area on or about May 5th. and on about Aug. 20th.
Areas used by concentrations...IX Whole water area.

Principal nesting areas this season...On islands, some out on old plant growth and on land around water area.

Reported by...Wesley D. Parker.

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 Sibley Lake RefugeMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon						July 19th.				60
Hared Grebe										200
White Pelican										200
Double-crested Cormorant										200
Great Blue Heron										100
American Bittern.										100
II. <u>Shorebirds, Gulls and Terns:</u>										
California Gulls										1000
Franklin Gulls										8000
Common Tern										300
Black Tern.										300
This is on the real migration route and most likely there are many more waterfowl that use this area than have been listed.										
The gulls use the water area as a resting place late in the summer.										

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove					300
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow					200
A fairly large number of doves use this Refuge it is believed since there are several acres of timber on it. The crows also stop on their northward way here much.					
Reported by Wesley D. Parker					

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.

(Nov. 1945)

WATERFOWL

Refuge Silver LakeMonths of May 1st. to August 31, 1945.

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan						July 11th.			
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									50 100 100
III. <u>Unidentified Ducks</u> Ducks: Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck							1 1 2	15 6 48	(1) 3000 1000 1000 3000 100 200 300 2000 1000
IV. <u>Coot</u>								50	500

(over)

SUMMARIES

Total Production:

3-1750
Form NR-1
(Nov. 1945)

Geese.....

Total waterfowl usage during period 12,350

Ducks.....69

Peak waterfowl numbers.....The waterfowl stop mainly of the spring and fall of this area. The most birds were on it about May 5 to 10th. They stop
Areas used by concentrations.....mainly on the north east end of water area.

Coots.....50

Principal nesting areas this season They do not nest much around this water area. It is the same as around the rest of the country. They nest here & there on the land area.

Reported by Wesley D. Parker.

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 Silver LakeMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon						July 11th.				100
Eared Grebe										100
White Pelican										80
Double-crested Cormorant										50
Great Blue Heron										50
Black-crowned Night Heron										100
American Bittern										100
II. <u>Shorebirds, Gulls and Terns:</u>										
California Gull										3000
Franklin Gull										6000
Common Tern										500
Black Tern										500

(over)

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					200
IV. Predaceous Birds:					
Golden eagle					2
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
This refuge has a timbered area on the south and west that the birds make much use of when migrating.					
Reported by Wesley D. Parker.					

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes) II. Shorebirds, Gulls and Terns (Charadriiformes) III. Doves and Pigeons (Columbiformes) IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.

Refuge Woodlake Marsh Months of May 1st. to Aug. 31. 1946.

[illegible]

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period.....3,410

(6) Ducks.....25.....	(5) Young Produced	(4) Last Seen
Coots.....10.....	Broods Seen	Number
Total	Total	Date

Peak waterfowl numbers.....The waterfowl use it mainly of a spring and fall when migrating.

Areas used by concentrations.....On all of the small area of water.

The migrating birds (ducks) use it much for a small area of a fall late to rest on while feeding in the fields.

Principal nesting areas this season.....They do not nest on this area but little around the water area.

Reported by Wesley D. Parker.

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.

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3-1751

Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS

(other than waterfowl)

Refuge Woodlake MarshMonths of May 1st. to Aug. 31. 1946.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Common Loon						July 19th.				10
Bareed Grebe						also on				20
White Pelican						Aug. 18th.				30
Double-crested Cormorant										15
Great Blue Heron										30
Black-crowned Night Heron										10
American Bittern										
II. Shorebirds, Gulls and Terns:										
California Gull										100
Franklin Gull										300
Common Tern										80
Black Tern.										80

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove					60
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow					100
A few of the birds use this area just the same as they use all of the other areas of land where there is some brush on it and a small area of water and people use the land areas.					
Reported by <u>Wesley D. Parker.</u>					

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.

WATERFOWL

Refuge Stamp Lake Refuge Months of May 1st. to August 31. 1946.

(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						July 19th.	No young birds were seen.		50
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									500 800 800
III. <u>Unidentified ducks</u>					30				
<u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Wood duck Red head Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck									4000 1000 1000 4000 50 100 100 100
			Around the islands and peninsulas, there was a fair amount of water this spring and early summer but by July 19th. it had dried up until there was bare lake bottom land entirely out to the land from both islands and there was much bare lake bottom land around the peninsulas.						100
IV. <u>Coot</u>									

(over)

SUMMARIES

Total Production:

Geese.....

Total waterfowl usage during period 12,580

Ducks.....None or but few.

Peak waterfowl numbers.....About 5th. of May.

Coots.....None

Areas used by concentrations Around the islands and the peninsulas out of the wind.

The alkali was rather strong in the water this spring and there was but little food in the water for the ducks.

Principal nesting areas this season Nest on good years of plenty of water some on islands and peninsulas (ducks).

Reported by Wesley D. Parker.

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.....Stump Lake.....Months of May 1st.....to Aug. 31st.....1946.....

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Common Loon					July 19th.		2		Estimated	20
Eared Grebe										60
White Pelican										200
Double-crested Cormorant							1		20	100
Great Blue Heron										30
American Bittern										30

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove					
White-winged dove					50
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
<p>This is a very good refuge and it is much used on years when the water level is rather high around the islands. The water is comparatively fresh and there is much food in the water then. If the Missouri River Diversion can raise the water level in this lake, it will make it so the waterfowl will use this refuge and lake much.</p>					50
Reported by Wesley D. Parker.					

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.



Roll 1 and Exp. 1. 5/7, '46. Gov. plane in a field north of Rock Rock Lake Refuge with (left to right) Mr. Harry Jensen, Agent; Mr. Wellein, pilot; Mr. Janzen, Regional Director and Mr. Thompson from the Regional Office standing in front of plane. A duck count was being made with plane.



Roll 1 and Exp. 2. 5/7, '46. Plane with Pilot Wellein & Mr. Thompson starting out to continue the duck count. It was noticed that there were not so many mallards in the country this spring as there have been during past springs. In fact, not so many of most of the species have remained to nest in this locality.



Roll 1 and Exp. 3. 5/7, '46. Dragline working on the Rock Lake ditch job. Part of the way the machine had to operate on mats. Many rocks of all sizes had to be lifted or dragged out of the ditch.



Roll 1 and Exp. 4. This picture shows part of the completed Rock Lake ditch. Also, it shows one of the fences that was constructed across the ditch by Patrolman Torkildson. Ducks are commencing to use this ditch already.



Roll 1 and Exp. 5. This shows another view of the dragline operating on the Rock Lake Ditch job. A very good operator was hired to run the machine and the work progressed very well this summer when it is considered that mats had to be operated on part of the time and there were many rocks to be moved.



Roll 1 and Exp. 6. 6/12th. This is Ardoch cabin. The grass has just been cut around the buildings, raked up and hauled away and all of the buildings were hoed around and other work was done. It can be noticed that the trees are making much of a growth.



Roll 2 and Exp. 1. 7/11th. Showing Silver Lake east shore line. It can also be noticed that the rushes, cattails and other plants are growing up in the water to make good cover on this water area. There is very good cover on north end of water area.



Roll 2 and Exp. 2. 7/13th. Rose Lake from west side showing the growth of round stem rushes out in the water and other plants that furnish cover. For a small area, many ducks were on this area when the bird census was taken.



Roll 2 and Exposure 4. 7/14th. This picture shows the plant growth out in the water and over it, on the Billing Lake Water area. The cover was good along the sides and especially so on the north end of the water area.



Roll 2 and Exp. 5. 7/14th. Kellys Slough, showing growth and cover on the south end of the slough. The cover is good on this water area. The waterfowl use it the most of a fall.



Roll 2 and Exp. 6. 7/19th. Sibley Lake, showing the growth out in the lake. There is good cover on this water area and over it. There is much food in the water. The waterfowl use it much.



Roll 3 and Exp. 2. 7/19th. This picture shows that the water level of Stump Lake has gone down much. The water has all dried up between the islands and the mainland and the peninsulas have become much larger.



Roll 3 and Exp. 3. 7/25th. This picture is taken from the north end to the south showing the heavy growth of round stem rushes, cattails, phragmites and other plants out in the 3400 acres of a water area. It is a difficult job to get through the growth with a boat, even with a good boat motor on the boat. (LAC AUX MORTES.)



Roll 3 and Exp. 4. 7/25th. This picture shows the thick growth of round stem rushes which furnish food for the waterfowl. Also, the water has much sago pond weed (look closely at the surface of the water), star duck weed, clasping leaf pond weed and other plants that furnish food that the waterfowl feed on.



Roll 3 and Exp. 5. 7/25th. This picture shows a small island on the Lac Aux Morts Refuge where there ^{are} some dead waterfowl that were picked up and buried. Muskrats have made many homes in the islands.



Roll 3 and Exp. 6, 8th. month and 7th. day. This picture shows how near the Forest River was dry on that date. People east of the Ardoch Lake wrote to the Regional Office relative to more water being let out of the lake. This picture shows the only water flowing into the lake, a stream 12" wide and 2" deep. There is apt to be no water flowing here at all by the end of August.



Roll 4 and Exp. 1, 8/8th. Showing just pools of water left here and there in the Salt River between the Ardoch Lake and the Red River. The local people that pasture stock along the river say they need water for their stock & the animals get stuck in the mud. They use wells to get water in the winter time and can use them also in summer time.



Roll 4 and Exp. 2, 8/8th. This is another view of the Salt River between Lake Ardoch and the Red River. On the 8/8th. the water level of the Ardoch lake was down 6" lower than it should be due to the drouth and no more water could be let out of the lake until more rain is received.

Roll 4 and Exp. 1. This is another view
between Lake Arbock and the Red River. On the left
the Arbock lake was down 2" lower than it should be due
and no more water could be let out of the lake until more
received.

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Roll 4 and Exp. 1. This is another view
between Lake Arbock and the Red River. On the left
the Arbock lake was down 2" lower than it should be due
and no more water could be let out of the lake until more
received.