

BRANCH OF WILDLIFE REFUGES

NARRATIVE REPORT

ROUTING SLIP

DATE Oct. 16, 1951

Mr. Salyer _____

Mr. DeMont DM

~~Mr. Krummes~~ WK

~~Miss Baum~~

SECTION OF OPERATIONS:

~~Mr. Ball~~

Dr. Morley LM

~~Mr. Regan~~

SECTION OF HABITAT IMPROVEMENT:

~~Mr. Griffith~~ REB

~~Mr. Kubiak~~

Dr. Bourn WSB

~~Mr. Stiles~~

SECTION OF LAND MANAGEMENT:

~~Mr. Ackerman~~ WA

Mr. Davis CD

STENOGRAPHERS:

GEJ

REFUGE Blackwater

PERIOD May-August, 1951

Blackwater National Wildlife Refuge
Narrative Report
May, June, July and August, 1951

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Blackwater National Wildlife Refuge
Narrative Report

May, June, July and August 1951

I. GENERAL

A. Weather Conditions

	<u>Snowfall</u>	<u>Rainfall</u>	<u>Max.</u> <u>Temp.</u>	<u>Min.</u> <u>Temp.</u>	<u>Prev.</u> <u>Winds</u>
May	.00	2.48	84	40	S
June	.00	2.39	92	50	NE
July	.00	4.33	94	57	S
August	.00	2.94	90	53	S
Totals	.00	12.14	94	40	S

The first 3 days of the month were warm but the third was rainy and cooler, lasting from the 4th through the 7th. Rain again occurred on the 11th and 12th and it was cool again through the 20th. Squally conditions, due to the threatening gestures of an early season hurricane, caused the 23rd to bring the heaviest rains of the month. The maximum temperature was also reached on the 23rd. Cool weather held forth on the 28th and 29th bringing additional showers. May ended with the return of above normal temperatures. Precipitation showed a slight deficiency of .72 inches.

Temperature trends did not change very frequently during the month of June. The 1st to 5th was warm with a cooler period from the 6th through 18th. Heavy rains occurred during this period causing the precipitation for the month to average over an inch in excess of normal. Due to the excessive rainfall, thunderstorms occurred rather frequently. The highest temperatures were reached on the 24th and 25th with near normal temperatures for the remainder of the month.

The first half of July was hot and dry with very little rain. Temperatures were constant and averaged 84 degrees. The latter part of the month, from the 18th, brought the maximum temperatures of the month as well as almost all of the rainfall. An inch or over was recorded on the 24th and 29th and the peak temperatures of the month and season were on the 23rd and 24th. Temperatures reached 90 degrees or above on 5 days of the month. The lack of rain during the first of the month was the cause of the deficiency of 2.20 inches.

The thermometer reached 90 degrees on the first day of August followed by cooler weather until the 8th. Temperatures varied very little from the 8th until the 22nd, being consistently high. Lower temperatures were recorded for the latter part of the month. Rainfall was recorded on 7 of the first 13 days, accounting for most of the excessive precipitation for the month. Thunderstorms were frequent but not severe.

B. Water Conditions

Tide water levels functioned about normal during this period with the exception of ~~in~~ the month of June when a high of 1.90 was recorded on the 13th. The marshes were covered approximately six inches for a period of four days

but this did not appear to have any detrimental effect on vegetation or aquatics. The lowest recorded on the tide water areas was 0.05 on May 26.

Water levels on the fresh-water ponds were maintained slightly below normal during this period. The lowest recorded in Pond #3 was 3.40 on July 23rd and the highest recorded was 3.69 on June 12th.

Levels on Pond #2 were maintained at about the same as of Pond #3. The highest recorded was 2.90 on May 25 and the lowest was 1.88 on August 30. Sufficient water supply was available for good waterfowl and muskrat production for the entire period.

C. Fires

No fires occurred on the Refuge for this period.

II. WILDLIFE

A. Migratory Birds

1. Population and Behavior. Conditions appeared to be very good for waterfowl nesting and about the middle of this period the evidence of a good breeding season was very noticeable. Numbers of young ducklings and Canada geese could be observed on all nearby ponds and rivers.

The Canada geese showed a good increase over that of last year for this same period.

The Blackduck also made a good increase. This species could be observed around Ponds #2 and #3 and nearby vicinity. The Blue-winged Teal made good progress in their nesting period which resulted in a bumper crop for this species. The common Mallard that remained here on the refuge were very active in the nesting period. Several nests were observed near headquarters.

The Barn Swallow appeared to be increasing in numbers. It was very common to observe several nests in most all buildings on the Refuge.

The Purple Martin made a good increase in population during this period and at the end of August they had departed on their southern flight for the winter.

The Virginia and King Rail appeared in good numbers for this period. Yellowlegs, Sandpipers and Killdeer were plentiful. Mourning Dove were observed in less numbers this period than last year for this period. It appears that this species has shown about a 50% decrease.

2. Food and Cover. Food and cover have been plentiful for migratory birds during this period and no feeding has been necessary.

3. Botulism. None has been discovered on the Refuge during this period.

4. Lead Poisoning and other Diseases. None to report for this period.

B. Upland Game Birds

1. Population and Behavior. The population of Quail appears to be about the same as of last year for this same period. An estimated total of 650 of this species are on the refuge area. Several coveys could be observed along hedgerows and the dike borders.

2. Food and Cover. Sufficient food and cover has been available on the refuge for our upland game birds during this period. One field near headquarters was planted in spring wheat and proved very beneficial to the upland game for both food and cover.

3. Diseases. No disease has been discovered on upland game during this period.

C. Big Game Animals

A fair number of white-tailed deer have been observed on the refuge this period. There will be an open season for this County (Dorchester) on deer this year and it is expected that our patrol activities will be increased to keep poachers from venturing too close to our boundary lines during the open season. We are planning to distribute salt blocks in areas where this big game animal will be protected from the hunters, as it is the opinion of the writer that the population of deer in this area is not too plentiful.

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

1. It is believed that the muskrat population is on an increase over a few units of the refuge. Conditions have been excellent for this fur-bearer during this period. Vegetation has made good growth and an abundance of food will be available during the forthcoming season.

2. The cotton-tail rabbit appears to show an increase in population. It is very common to observe several at a time along the roads and hedgerows around headquarters.

3. The population of the raccoon appears to be on an increase over the area. During this period evidence of predation by the raccoon and red fox on the muskrat was very noticeable. In the month of June a survey was made on a good number of units and at least 85% of the muskrat houses were torn open or bored by the raccoon or fox. It appears that some measure should be taken to control these predators in order that the muskrat population can possibly make a comeback. Adjacent marsh owners have been doing control work with excellent results. Several red fox dens were found on the refuge and a good number of muskrat pelts scattered around the den. Although the population of the red fox is much lower than the raccoon great damage can be inflicted on the muskrat population by this predator.

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

Several hundred crows have been observed on the refuge area during this period. They are very noticeable around the corn and buckwheat fields. A few crows have been removed by Refuge personnel.

A large number of American bald eagles have been observed during this period.

Survey did not establish extent of loss.
The indicated that predation could not
be established with certainty in all
instances where houses had been
disturbed. Incidence of predation
was far less than the "85%" figure
given here, judging from data
in Mr. Harris' report. The value of
control work referred to here is
questionable. REG.

F. Fish

No fishing permits were issued for fishing during this period.

III. REFUGE DEVELOPMENT

A. Physical Development

Development work on the refuge consisted of reclaiming refuge fields, clearing hedgerows, ditching, liming and fertilizing. Other work done on the refuge was mowing of dikes, lawns, maintenance of floating equipment, farming and heavy equipment, automotive equipment, farming operations for fall planting of grain.

B. Plantings

1. Aquatics and Marsh Plants. None planted this period.

2. Trees and Shrubs. None planted

3. Upland Herbaceous Plants. None

4. Cultivated Crops. During this period Refuge fields D and B, 31 acres, were planted in corn and a good crop is expected. Harvesting of this crop will soon be effected. Field A, 15 acres, was planted in sweet corn by our share-cropper and the entire field was left standing at our disposal. This will greatly supplement the feeding of waterfowl during the fall migration. Field E, H, I and a portion of F and L, making a total of 53 acres, were planted in soybeans, approximately 12 acres of fields F and L were planted in buckwheat. The soybeans in fields H, I and F are being plowed under as a soil builder. Very few beans would have been harvested if they had been left standing for harvest this fall. This was due to a dry spell occurring about the time the beans were making, thereby cutting the crop short. Field E, 18 acres, in soybeans was planted early and the dry spell did not affect the making of this crop and a good harvest is expected. The buckwheat planted in a portion of F and L made a fair crop considering the weather conditions and we are expecting to harvest this crop shortly. Our Sharecropper John Lughy planted soybeans in all the fields on the west side of the refuge. 15 acres were planted for the Government share and a good crop is expected.

C. Collections.

1. Seed or other Propagules. 25 bushels of spring wheat was harvested. This will be stored for spring planting. 700 pounds of bluegrass seed was received during this period. 200 pounds will be used for this refuge and the remainder of 500 pounds will be transferred to other refuges in this region.

2. Specimens. None

D. Receipts of Seed and Nursery Stock. None

20 bushels of wheat (winter) were purchased this period for fall planting.

IV. ECONOMIC USE OF REFUGE

- A. Grazing. None to report for this period.
- B. Haying. None for this period.
- C. Fur Harvest. No trapping was conducted on the Refuge and no fur harvest to report.
- D. Timber Removal. None for this period.
- E. Other Uses. None

V. FIELD INVESTIGATION OR APPLIED RESEARCH

- A. Progress Report. Banding operations were very limited during this period. Only 2 great blue heron were banded.

We failed to mention in our previous report that we cooperated with Dr. Herman at Patuxent and supplied him with blood smears of 57 Blackducks, Mallards, and Canada Geese. Dr. Herman was very pleased with this material and appreciated our cooperation.

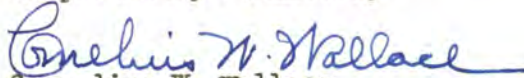
VI. PUBLIC RELATIONS

- A. Recreational Uses. None available on the Refuge.
- B. Refuge Visitors. A total of 45 visitors registered at headquarters during this period. The official visitors included Messrs. John Ball, Arthur F. Miller, David Hickok, Enos Mellinger, Henry Whitley, Herbert Buckalew, Morris Robbins, Darrel Shuffler, Henry Bush, David Fitze, Ralph Harris and James Williams. The reason for the decline in the number of visitors during this period is possibly due to the plague of mosquitoes and deer flies which inhabit the refuge during this season of the year.
- C. Refuge Participation. None to report for this period.
- D. Hunting. No hunting is permitted on the Refuge.
- E. Fishing. No fishing has been permitted on the Refuge during this period.
- F. Violations. None occurred on the Refuge during this period.

VII. OTHER ITEMS

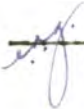
- A. Items of Interest. None to report for this period.
- B. Photographs. None available.

Respectfully submitted,


Cornelius W. Wallace
Refuge Manager

CWWallace:llw

APPROVED:

 _____
Regional Refuge Supervisor

10/3/51. _____
Date

Regional Director

Date

Refuge Blackwater

Months of May 1

to August 31 19 51

3-1750 (over)
(Sept.1950) Interior - Duplicating Section, Washington, D.C. 82449

(over)

Form NR-1

SUMMARIES

Dates waterfowl counts made 6/9-14/51 9/23-23/51

Total waterfowl usage during period 2535

Percent of waterfowl area covered Approx. 40%

Peak waterfowl numbers _____

Dates brood counts made 6/9-14/51

Areas used by concentrations _____

Percent of area covered in brood counts 40%

Total production:

Principal nesting areas this season Units 2, 1, 3, 4, 5.

Geese 60

6, 7, 8, 9, 10, 14, 15, 16, 27, 29, 31, 36 Ponds 1, 2 & 3.

Ducks 725

Coots _____

Reported by C. W. Wallace

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 BlackwaterMonths of May 1 to August 31 195 1

(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>										
Great Blue Heron			75	8/5						75
Black-Crowned Night Heron	6	5/10	100	8/15						100
American Egret	20	6/10	100	8/15						100
Green Heron	1	6/10	50	8/15						50
Eastern Least Bittern	3	6/10	60	8/15						60
II. <u>Shorebirds, Gulls and Terns:</u>										
Killdeer			400	7/15						400
Lesser Yellowlegs			500	8/15						500
Wilson Snipe			300	8/15						300
Least Sandpiper			400	8/15						400
Sanderling			400	8/15						400
Virginia Rail			500	8/15			6		25	525
Clapper Rail			250	8/15						250
King Rail			500	8/15						500

(over)

(1)	(2)		(3)		(4)	(5)			(6)
III. <u>Doves and Pigeons:</u>									
Mourning dove			250	6/15					250
White-winged dove									
IV. <u>Predaceous Birds:</u>									
Golden eagle									
Duck hawk									
Horned owl									
Magpie									
Raven									
Crow			2000	8/15					2000
American Eagle			35	8/15					35
Red-tailed Hawk	5	8/15							20
Coopers Hawk	5	8/15							
Sparrow Hawk	8	8/28							
Reported by <u>C. W. Wallace</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.

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

1613

Refuge Blackwater

Months of May 1, to August 31,, 1945

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks	
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent information not specificoally requested. List introductions here.	
Quail			7	90	55% males	N	O	N	E	700	Personal Observations Afield

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

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

3-1570
NR-8a

REFUGE GRAIN REPORT

Refuge Blackwater

Months of May 1 thru August 31, 1945

(1) VARIETY	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) ON HAND END OF PERIOD	(7) PROPOSED USE		
				TRANS- FERRED	SEEDED	FED	TOTAL		SEED	FEED	SURP.
Mixed grain	20	34	54	None	None	50	50	4	--	4	None
Soybeans	550	None	550	435	115	None	550	None	--	--	None
Spring wheat	None	25	25	None	None	None	None	25	25	--	None
Rye	None	25	25	None	25	None	25	None	--	--	None
Winter Wheat	None	20	20	None	20	None	20	None	--	--	None
Corn	None	4	4	None	4	None	4	None	--	--	None

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

(9) Grain is stored at.....

(10) Remarks.....

NR-8a

REFUGE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lbs., Corn (ear)—70 lbs., Wheat—60 lbs., Barley—50 lbs., Rye—55 lbs., Oats—30 lbs., Soy Beans—60 lbs., Millet—50 lbs., Cowpeas—60 lbs., and Mixed—50 lbs. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

- (1) List each type of grain separately: Corn, wheat, proso millet, etc. Include only domestic grains; aquatic and other seeds will be listed on NR-9.
- (3) Report all grain received during period from all sources, such as transfer, share-cropping, or harvest from food patches.
- (4) A total of Columns 2 and 3.
- (6) Column 4 less Column 5.
- (7) This is a proposed breakdown by varieties of grain listed in Column 6.
- (8) Nearest railroad station for shipping and receiving.
- (9) Where stored on refuge: "Headquarters grainary", etc.
- (10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.