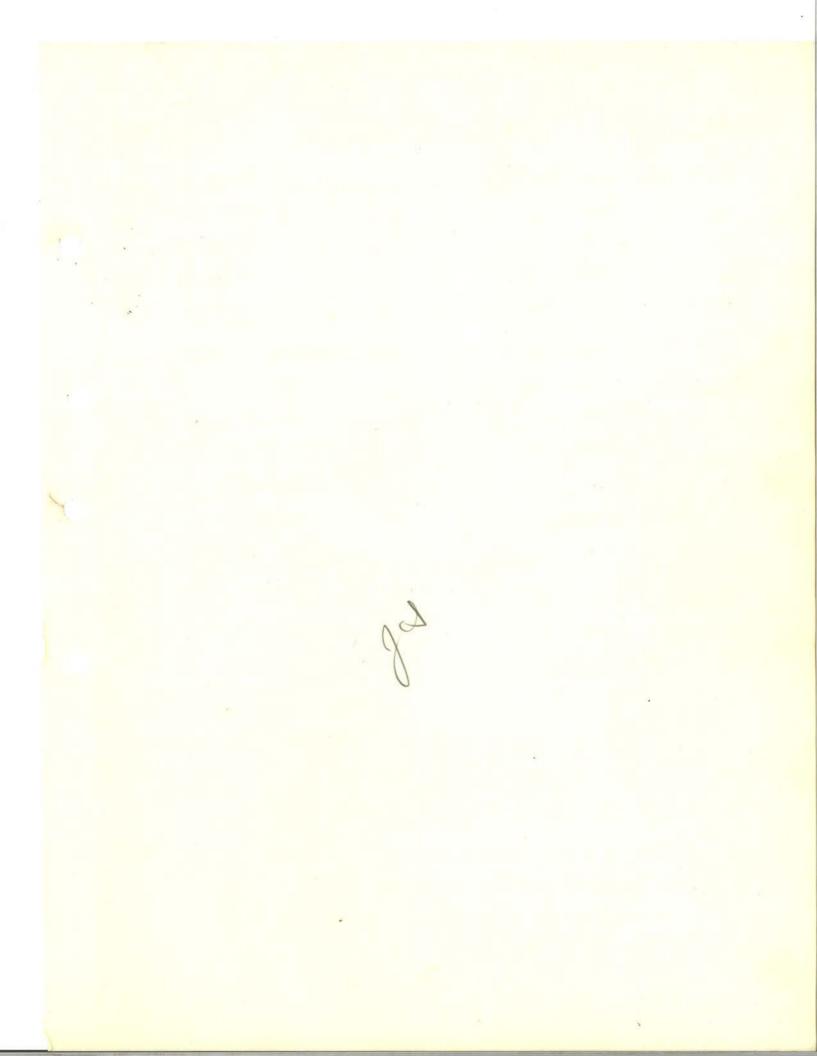
ing slip Vision of wildlife REFUGES DATE: 5-21 194.2 ROUTING SLIP SECTION OF HABITAT IMPROVEMENT: MR. SALYER Mr. Kubichek MRS. WOODIN MR. HINSR Mr. Smith Nr. Griffin REG 5/42/44 MRS. GARVIN Miss Cook muc 8-MR. DUMONT SECTION OF ERA: SECTION OF OPERATIONS: hr. Regan Ngp 7/1 Lip Krunnes 11 5/2 Dr. Bourn WSB6, Mr. Costation Red 6 2 Miss Baur Mrs. Fishman Mrs. Kricun SECTION OF LAND MANAGEMENT: STENOGRAPHERS: Miss Whorley Mr. Esphew Mr.Ackerknecht SECTION OF STRUCTURES: Kr. Taylor WV7 9 Blachwat Treaterly REMARKS : - april 194. Return to: Die files



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## BLACKWATER NATIONAL WILDLIFE REFUGE

QUARTERLY NARRATIVE REPORT

February, March, April, 1942

### I. General.

A. Weather Conditions.

Month	Rainfall	M	ax. Temp.	Min. Temp.
February	2.07		61	0
March	6.75		67	25
April	.61		85	38
Total	9.43	Extremes	85	0

The weather for this period was fairly normal, although most of the precipitation occurred in March rather than in April as is usually the case. April was unusually dry, having a total precipitation of only .61 inches.

B. Water Conditions. The water levels on the muskrat-trapping marshes fluctuated too much to allow for good trapping conditions. This was due to the changes in wind directions, and the consequent changes in tides on the local rivers, which are much affected by the wind. The heavy precipitation in March was quite beneficial for the ponds on the area, and in fact, the water areas as a whole on the refuge. The freshwater ponds at headquarters were filled to the spillway level, and the new pond recently formed behind the dike built in the Northwest part of the refuge, was also filled for the first time. It too was soverflowing its spillway. Waterfowl began using the new pond for a resting and feeding place as soon as an appreciable amount of water was stored. Pictures of the new pond, which is about 200-250 acres in extent, are shown in the appendix. II. Wildlife

A. Waterbirds.

Canada Geese remained at the refuge for almost this entire period before migrating northward. There were between 4000 and 5000 on the refuge at one time, which dwindled to a bout 1000 the first part of April, and these were mostly all gone by the third week of April. More Canada Geese were on the refuge this year than during any past year.

Green-winged Teal were much in evidence this year, and were more numerous also than in past years. This species seems to be increasing in numbers in this area every year. Green-winged Teal were observed on the refuge until the end of April. It is estimated that there were as much as 7000 on the refuge at one time during the months of Referency wave

Black Duck and Blue-winged Teal are nesting on the refuge again and while the Black Duck are here in greater numbers this year, the Bluewinged Teal remain about the same. First Blue-winged Teal were seen in February, and concentration started in March and increased in April to approximately 12,000. The population of <sup>B</sup>lack Ducks here this year is about 5000 as compared to 3000 last year.

During this period Pintail population was about the same as last year when there were 6000 . This population dwindled starting in April, and by the end of April there were a few Pintail left, but not many.

Decreases were noted in the populations of Baldpate, Shoveller, and Coot. Shoveller and Coot especially were very few in number, and while there were some 2500% Baldpate during this period, this number was quite a drop from the 4000 observed last year.

-2-

More Wilson Snipe were seen during this period, than in past years. In April, some 45 to 50 were observed throughout the refuge, and there were probably many more that were not seen.

The usual wading birds, and shorebirds common at this time of the year were observed, in various parts of the refuge, such as the Greater Yellowlegs, Herring and Ring-billed Gull, Virginia Rail, Great Blue and Black-crowned Night Heron, Killdeer.

Waterfowl still seem to be increasing in numbers on this refuge from year to year. Now that we have a new freshwater pond established, it is expected that next year will show a decided increase in population if the pond is used to the extent that we believe it will bet. There are very few areas of freshwater ponds or lakes available to wildfowl in this vicinity, and the different kinds of food plants that can be grown there should prove of great attraction to migrating waterfowl.

Wigeon grass is still the most important wild food for wildfowl, and is found in most of the shallow ponds on the refuge. Seeds of Spartina, and Scirpus are also used to some extent for food, as are the fresh young shbots of these plants. During this period the wild Canada Geese on the refuge spent most of their time feeding on Wigeon grass in Twin Ponds, and did not forage much on the grain fields, as they had done in the past.

The Canada Geese and Mallard flocks that remain at the refuge the year around, have nested, and some Mallard broods had already been hatched out by the end of April.

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B. Upland-game Birds.

Quail were more in abundance this year than last year, there being about 400 quail altogether on the refuge around the farm fields in the northern part of the refuge. They use the field borders which have been allowed to grow up for escape cover, and have been planted to various plants for food. Coveys range from half a dozen to about 25 at this time. Mating is starting in April, and nesting will soon take place.

Woodcock are scarce. Individuals, and once or twice two or three birds have been seen around the refuge, but they have not been observed often. Probably 50 are on the refuge altogether.

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

Red foxes and raccoon are present in larger numbers than in past years, there being an estimated 250 raccoon, and 100 ref foxes on the area?. Agreements have been entered into with a local person to trap these animals on a share basis. An additional agreement was made whereby the trapper would catch live raccoon and sell them to the State of Maryland for \$3.00 each, for restocking purposes in other parts of the state. The trapper is thus an employee of the state for this work. Most of the live-trapping for raccoon will start in May, as at that time most of the young will be born, and there will be less chance of losing the mothers or the young by abortion. The trapping of red fox will go along with the live trapping, but the red foxes will be killed, and their stomachs saved for analyses by the Division of Wildlife Research. Two raccoons were trapped alive and turned over to the State; one each on March 10 and 11.

-4-

About two or three hundred Bryant fox squirrels were present during this period around the northern upland part of the refuge. Also some two or three hundred ordinary gray squirrels, all of which alternate between the farmf fields, and the woods north of the road, which is owned partly by the Government, and partly by private owners.

Opossum are fairly plentiful too, on the refuge, as they are observed from time to time both during the day, and at night around the edges of fields, and along the roads. It is estimated that there are about 200 of these animals present on the refuge.

Rabbits are observed along all of the roads on the refuge, especially in the early evening, and early morning. It is estimated that there are about 1000 rabbits or more, present on the uplands.

From observations made in the marsh, it is apparent that muskrats have a better year for living conditions than last year, and that if conditions do not get too bad, that is too dry this summer, the population of muskrats next fall and winter should be much larger than this past year. During April there was scarcely any rain, and while this created a period of about a month with dry weather, our observations lead us to believe that no harm resulted, with regard to the muskrat population.

Steps have been taken again this year to eliminate some of the snapping turtles on the refuge. An agreement has been made with a local person to trap them out with fikes, and to keep all that he catches, as his share of the operation. Snapping turtles range in size from two or three pounds up to 25 and 30 pounds here, and these larger turtles are capable of destroying nestling and full-grown ducks. We have occasionally observed snapping turtles attack mature ducks.

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III. Refuge Development and Maintenance.

A. Physical Development

An implement shed forty by twenty feet was erected at the farm building group for use by the resident farmer on the refuge for the storage of his implements. This structure was erected by two carpenters hired for the job.

Repairs were made to the dikes at headquarters by rip-rapping their sides with oyster shells. This work was done partly by refuge personnel and partly by several laborers hired to do it. The job is not yet finished.

B. Plantings

1. Aquatics and marsh plants.

Species	Date planted	location	amount in 1bs.	
Echinochloa crus- galli	3/27/42	Outer, or north edge of new freshwa	1200	Seed
		pond.		

Forygonum	1 1	100	323		
pennsylvanica	3/27/42	88	66	400	Seed

The above seeds were phanted in a strip from 100 to 200 feet wide along the outer border of the new freshwater pond. Not enough time has elapsed to determine the results.

### IV. Public Relations.

Visitors. There were 160 visitors to the refuge during this period, several of them being groups of bird students. Official visitors who stopped in during the period are:

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Dr. W.S. Bourn and W.E. Johnston stopped in on February 6th, and conferred about construction and general biological factors.

On February 14, all 5 Regional Supervisors, and the following of the Washington office - Messrs. A.C. Elmer, W.T. Krummes, W.E. Ackerknecht, P.A. Dumont - visited the refuge and discussed and observed the operation of the muskrat-trapping program on the refuge. They also went over the refuge, and checked on refuge operations.

Mr. Ashbrook, and Mr. Kellogg of the Division of Wildlife Research visited the refuge on March 13, and conferred with the Director of the Fur Station and the Refuge Manager on muskrat operations.

On April 3, Messrs. Salyer, Locke, and Sutherlin made a brief examination of the refuge and discussed refuge operations. Mr. Sutherlin stayed for the following two days and conferred about refuge matters.

#### B. Violations.

Two cases against violations of waterfowl hunting regulations were tried during this period. In one, Dwight Hurley, Vienna, Md., was fined \$25.00 for operating a hunting blind that was baited. In the other case, Ulman Phillips, Hoopersville, Md., was fined \$10.00 and costs for operating a baited huntang blind. Additional cases have yet to be heard. - One case of refuge trespass was heard in Commissioner's court at Salisbury, in a preliminary hearing, and the case was ordered held over a to be tried in Federal court in Baltimore, on the weight of the evidence submitted.

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V. Economic Uses of Refuge

Cooperative Farming/. For this year, we have had three cooperative farmers signed up to farm the refuge farm lands. One of them lives on the area. He has plowed up much of his land, and worked and planted some of it. That permittee who rents the land near the headquarters has nearly all of his land under cultivation and planted. The third permittee finds that hewill be unable to work his land because of the fact that it borders the new freshwater pond, and the water floods the fields. Growing conditions look promising this year, and with fair weather crops should be good.

-8-

Fur Harvest. A special report will be made on the muskrat trapping program on the refuge. In general, the muskrat population was fair, but the trapping conditions poor. Some 6,700 muskrats were taken, and their average market price should be about \$1.75. We have not yet had any returns on the results of muskrat pelt sales.

Black

David V. Black Refuge Manager



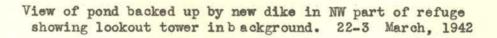
Root Cellar built for Fur Animal Field Station showing ventilator installed in inner door 22-1 March, 1942



Start of rip-rapping of dike slopes of headquarters dike. Oyster shells are used.

22-2 March, 1942







Another view of same pond taken from tower, and looking East. 22-4 March, 1942



New freshwater pond at Blackwater Refuge showing watercontrol structure, and looking SE. March, 1942 22-5



Muskrat-trapper bringing in his catch at headquarters Blackwater Refuge. March, 1942. 23-1



Hauling traps in from marsh at end of season. Blackwater Refuge. March, 1942. 23-2



View of traps after being taken from marsh after muskrat season. Note that traps are attached at base of marker poles. March, 1942. 23-3



Black Ducks caught in Chesconnessex-type trap on Blackwater Refuge for banding and release. February, 1942. 23-4



Another view of above trap. February, 1942. 23-5



Otter wallow in Spartina patens and Scirpus olneyi growth on edge of creek at Blackwater Refuge. February, 1942. 23-6

