BLACKWATER QUARTERLY NARRATIVE REPORTS

FEBRUARY 1940

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JANUARY 1941

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April 24, 1941

Mr. S. B. Locke
Regional Director
1140 Park Square Building
Boston, Massachusetts

Dear Mr. Looke :

In reviewing the Blackwater Refuge November-January report, we note that Mr. Black has not followed the instructions outlined in Division Memorandum No. 91 with respect to reporting waterfowl data. In the last paragraph on page 2 of the report, Mr. Black stated that there were 40,000 ducks on the refuge in November. Apparently this was the peak concentration for the quarter; however, Mr. Black should have specified the date when this concentration occurred. He should also have shown the breakdown of this concentration by species.

On page 3 of Mr. Black's report he has indicated the waterfowl population of various refuge units by species but has neglected to be specific about the dates when his observations were made. The information which he has submitted with respect to waterfowl usage of the refuge is of some value; however, such records are more useful to this office if the dates of observations are indicated, as requested in Division Memorandum No. 91.

Please call this matter to Mr. Black's attention and check future refuge narrative reports to see that the field officers are following instructions outlined in Division Memorandum No. 91.

Sincerely yours,

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

### BLACKWATER NATIONAL WILDLIFE REFUGE

### QUARTERLY NARRATIVE REPORT

November, December 1940, January 1941

### 1. General.

### A. Weather Conditions.

Month	Snowfall	Rainfall	Max. Temp.	Min. Temp.
November		4.5	72	29
December		2.0	64	18
January	.1	2.5	61	22
TOTAL	.1	9.0 Extr	emes 72	18

The weather during this period was somewhat colder during the first part, and warmer during the latter part than usual. For three days starting the sixth of November we had winds of gale force from the Northwest. which was out of the ordinary. Our first heavy frost occurred on the 19th of November. December 2nd, there was ice on the ponds and rivers of this section. whereas for many winters at a time there is no ice present at all especially on the larger streams. The first snow flurries occurred on the fifth of December. During the entire period, however, there was hardly any snow at all. Alternate periods of freezing and thawing weather occurred after the first ice formation was recorded here, and continued until the end of the period. This type of weather is not very conducive to good muskrat-trapping. During the corresponding period last year, we had mild weather for November, becoming somewhat colder in December. In January, starting with the first of the month, snow and cold weather became prevalent, the ponds and rivers froze over, and remained in that condition until the end of the month and beyond. There were two heavy snows during the month, and snow remained on the fields and roads. The fall amounted to from two to three feet in depth, and piled up in drifts in many places as high as eight feet. Last year's weather, too, was unusually severe, for this region.

### B. Water Conditions

Water in the ponds on the refuge was generally lower than during average years. This condition was due to the fact that we had an unusually dry summer, which resulted in the evaporation of much of the water from the ponds. Because of an insufficient amount of rainfall, the ponds did not fill up enough to hold their normal amount of water. The tides on the rivers have varied a great deal during this period. In alternate periods of about 5 or 6 days, the tide would rise in the rivers, and thus also throughout the marshes, and then fall. The change in tides is due mainly to the prevailing winds in this area, coupled with the normal tidal changes on the Chesapeake Bay. A Northwest wind will drive the tides down in the rivers, and the water out to the bay; while South and Southeast winds will usually mean a rising tide within a day or two.

### C. Fires.

There were no fires on the refuge during this period.

### II. Wildlife.

### A. Waterbirds.

- 1. Populations and behavior.
- (a) Species. On the whole the duck populations this year during the present period were very similar to the populations one year ago, in this region. Canada Geese, Pintails, Green-Winged Teal, and Ruddy Ducks showed an increase.

The greatest number of ducks on the refuge at any one time was approximately 40,000 in November. November has always been the period of largest waterfowl concentrations in this region.



Large flocks of Baldpate, Black Ducks, Green-Winged Teal, Pintail and American Merganser were seen throughout the refuge during this period. Black Ducks were again somewhat less in abundance than two years ago, but still fairly numerous. On one day, about 1000 Canada Geese were counted throughout the refuge. This by far the largest number ever noted on the refuge at one time. On Blackwater Pond there were seen one day near the end of November 3000 Baldpate, and a flock of 2000 mixed Black Duck and Pintail. On Cattail Pond, there were noted about 10,000 mixed Black Duck, Baldpate, Pintail, and Green Winged Teal. At the headquarters pond there were 3000 mixed Black Duck, Baldpate, Pintail, and Green Winged Teal. On Beargarden Pond, there were 2000 Black Ducks and Baldpate. Throughout the marshes there were counted 1700 Pintail.

After the first freeze-up the number of wintering birds decreased, and their numbers have never reached the amounts as recorded in November. However, toward the latter part of January, the flocks have come back womewhat. At this time, especially near the headquarters pond, we find about 1000 Pintail 300 American Merganser, and several hundred each of Black Duck, and Green Winged Teal. Throughout the refuge, there are about 8000 ducks and Geese. At the headquarters pond also during the latter part of January there is a flock of Canada Geese numbering some 600. They have been feeding on the wheatfields planted by the fefuge personnel and the tenant farmer, and have had access to the freshwater ponds nearby, thus making an ideal set-up for keeping them on here. They have now gotten a routine of flying up the Little Blackwater River in the evening to feed on the flats on wigeon grass, and an occasional wheatfield, and in the evening they return to the pond at our headquarters.

Other birds noted during this period were Great Blue Heron, American Egret, Whistling Swan, Forster's Tern, Herring Gull, Shoveller, Coot, Greater Yellowlegs, and Lesser Yellowlegs, Jacksnipe, Blue-Winged Teal, Red-Backed Sandpiper, Horned Grebe, Ring-billed Gull, and Kingfisher.

2. Food and Cover. There is ample cover in the marshes for all types of waterburds. This consists of marsh grasses such as Scirpus olneyi, Typhos, Spartina, Switchgrass, and the like. Also at the edges of the marsh and the woods, there is plenty of myrtle, small pines, and shrubbery for concealment of birds and of nests. For food the main item appears to be wigeon grass, which is found in the shallow ponds that abound on the area. This is only available off theponds having a hard bottom, or on the edges of the other ponds. Many of the ponds here have soft, muddy bottoms that are influenced by underwater movements, and are unable to support plant growth. Geese have not been known to feed on the roots of marsh plants here as is done in other areas, although it would seem probable that they do so to some extent. We have always found them in ponds on the marshes, and when out of the marshes, they prefer wheat fields.

B. Upland -game and migratory birds.

The quail have not come back this year in numbers equal to past years.

We attribute this to the fact that the past winter was quite severe on them and decimated their numbers. It is possible that the coming broods for this year will make a good showing later on.

The meadowlark appears to be increasing in numbers again. They too were severely affected by last year's snows. Other birds noted during this period

were the Turkey Vulture, Red-Tailed Hawk, Bald Eagle, Osprey, Black-Capped Chickadee, White-Breested Nuthatch, Brown-Headed Nuthatch, Tufted Titmouse, Great Horned Owl, Downy Woodpecker, Hairy Woodpecker, Short-Billed Marsh Wren, Myrtle Warbler, Junco, White-Throated Sparrow, Song Sparrow, Redwinged Blackwird, Purple Grackle, Chipping Sparrow.

It is noted that the native Red Cedar trees, most of them of small stature are used to a great extent for shelter, and nesting by the smaller birds, such as sparrows. Presumably the fruit on these trees is also eaten for food. There is an abundance of weed seeds along the woods borders and field borders available for smaller birds, as well as the buds and fruits of the common hardwoods such as oaks, maples, gums, dogwood, and the like.

We have put out small food patches at various locations containing seeds of wheat, muckwheat, corn, and cracked corn, and some suet, and these areas are very popular with the smaller birds. Crows too, make use of them, and the smaller rodents.

### E. Fish.

No fish are now taken on the refuge proper. Some nets are still being set in the Blackwater River, but abutting on private property. One unusual circumstance noted is that perch have been taken on hook and line at the big bridge on the state road for approximately the whole month of January. This is of interest because the yellow perch has not been known to be caught in this area before during January. The fishing is not on the refuge but immediately adjacent to it.

### III. Refuge Development and Maintenance.

### A. Physical Development.

Most of the physical development completed on the refuge during this period was done with the use of WPA labor. They have built over 10,000 cubic yards of dike for our freshwater pond, helping our dragline. Due to inclement weather the dragline was not operating all the time. They have nearly completed remodelling the farm building that was moved to the state road for the use of the tenant farmer. Some 2300 bushels of corn have been harvested and stored. About 3 acres of marsh plants have been planted on the dike slopes. It is thought that this will eventually grow, but if it does not, it will serve as useful riprap, and prevent gullying on the dike. Work has been begun remodelling the headquarters residence of the refuge manager by applying asbestos shingles on the exterior. The laborer-patrolman is supervising this work, and doing some of it himself.

### B. Plantings.

Cultivated Crops. The 2300 bushels of corn that were harvested by the WPA were planted by the refuge personnel during the past growing season. Out of 56 acres planted to corn, we harvested about 2980 bushels, or an average of 53 bushels per acre.

### IV. Public Relations.

A. Recreational Uses.

Visitors. During this period there were 178 visitors who stopped in at the refuge.

Mr. John H. Sutherlin, Regional Supervisor was here on November 1st and 2nd, and January 1st to 5th, spending all of the above days on the refuge and conferring about refuge matters and advising on matters pertaining to the organization of the muskrat-trapping program.

Mr. J.S. Bullerweck visited the refuge on November 11th with part of the student body of Temple University. Mr. Bullerweck is the Director.

Messrs. Robert C.McClanahan and Harold S. Peters, Flyway Biologist stopped at the refuge December 2nd, and made a trip to Cattail Pond to see the waterfowl there.

Mr. L.A. Stearns and D. MacCrary, of Newark Delaware called on December 18th and discussed the relations of marsh to mosquitoes and muskrat management.

Mr. Stearns is co-author of pamphlets on the above subjects.

On the 1st and 2nd of January, Mr. Allan H. Bonwill stopped in to discuss wildlife of marsh lands, and take several pictures. Mr. Bonwill is a teacher at the McDonogh School near Baltimore.

Mr. Charles E. Kellogg of the Section of Fur Resources was at the refuge January 7 to 10th conferring with Dr. Dozier and the refuge manager on the muskrat-trapping program.

Mr. C.W. Woolworth of Leasing Lancaster, Pa., president of the Animal Trap Company, and Messrs. VanCleve and Blanchard, also of the Animal Trap Company, stopped in at the refuge January 9th to check over progress on the muskrat-trapping program, and confer with refuge personnel about the status of trapping in this area.

Mr. Wm. T. Krummes of the Washington office looked over the refuge on the 10th of January and checked progress and methods of our muskrat-program.

Mr. Fortier of the Engineering staff visited the refuge on January 20th and checked the dike progress, and other engineering work.

From the 22nd to the 23rd, Messrs. Frank G. Ashbrook, Robert K. Enders and James Leekley were at the refuge. Mr. Ashbrook discussed the progress of the muskrat work, and Enders and Leekley observed the operations, and collected various rodent specimens. Mr. Ashbrook attended the Maryland Outdoor Show at Cambridge on the 31st, which also featured the muskratskinning contest.

### B. Violations.

About 100 duck blinds were checked over by the refuge personnel during the past waterfowl hunting season, and of these about 35 were found to be baited, and the owners warned.

Cases of waterfowl hunting violations were reported on 7 individuals.

None of these have as yet been tried in court. One of the above was tried by a United States Commissioner, who decided there was sufficient evidence for a trial by the United States court, and the person was held in \$500.00 bail.

Two individuals were also held on bail for intimidating an officer, by order of the U.S. Commissioner at Salisbury, Maryland. The officer in the case is the refuge manager. This case has not yet come before the courts.

### V. Economic Uses of Refuge.

Cooperative Farming.

Permittee- Mr. John Luthy. Permit Number- 37 and 325

Grain Planted	Acres	Average Yield	Total Yaeld Gov	vernment's share
Wheat	12 25	1420 bu.	340 bushels	51 bu.
Soybeans	15	12 bu.	180 bu.	27 bu.
Corn	15 6 5	72 bu.	1080 bu.	162 bu.
Tomatoes	10 6	5 Tons	50m Tons	108 bu.Corm*

\*Corn substituted for tomatoes at rate of 72 bu. of corn per acre.

Permittee- Ottie C. Elzey - Permit No. 2891

Planted 18 acres wheat in fall of 1940. Has not yet harvested any of it.

### E. Fur Harvest.

Starting January 1941, the rights to trap muskrats on the Blackwater Refuge reverted to the Government. The handling of the project was taken over by the refuge manager and refuge personnel, together with several additional employees hired for that purpose.

At the present time the trapping program is in full swing. Adverse weather conditions for trapping have hampered the trappers and kept the catch down. However, it is expected that there will be sufficient good trapping weather during the season to take all the muskrats from the area that were expected to have been taken.

A special report will be made on the trapping operations at the termination of the trapping season.

### VII. Other Items.

Outdoor Life Show.

On January 31st, and February 1st, 1941 the annual Outdoor Life Show for the State of Maryland was held at Cambridge, Maryland. The Blackwater Refuge was invited to submit an exhibit, and to serve on the committees.

The show consisted of exhibits set up by various sportsmen's clubs, Government agencies, and private individuals and companies. Besides the exhibits, there were a series of set programs that were carried out on the stage, and speeches were made by Government officials and other interested individuals.

The main feature of the show was the Second National Muskrat Skinning

Contest, which had been thought of and set in motion last year by Dr. Dozier

of the Section of Fur Resources. The committees tried to get as many entries

as possible from states outside of Maryland. Next year the contest may be held in some other state to further stimulate interest in the idea. This year the title was retained in our own county.

In our exhibit, we attempted to show that certain wildlife could live in harmony together, even though they were entirely different from one another. We showed a pond of about 4 feet by 6 feet, partially filled with water, and surrounded by marsh grasses, and some bushes. The whole exhibit was about 8 by 10 feet in size, and surrounded by wire netting. Inside we placed some Black and Mallard ducks, 5 in all, two Nutria, 3 Muskrats, and a Snow Goose. We also placed a small muskrat house in one corner of the exhibit.

All of the animals got along well together, without friction of any kind. The snow goose occasionally gave vent to a loud honk which startled and amused the audience in the building. A great many people stopped to see our exhibit, and it appeared to be one of the most popular in the show. We cooperated with the Fur Animal Field Station in the exhibit. Dr. Dozier also showed a board of enlarged pictures of his activities at the refuge, and a glass swimming tank containing two live muskrats, whereby the visitors could see at first hand how muskrats did swim. There was also a cage of live Nutria, a live weasel, and a showcase containing skins of various color phases of muskrats. All together, the venture was quite successful.

Respectfully submitted,

David V. Black Refuge Manager



Wild Canada Geese Feeding on Wheat Field on Blackwater Refuge Picture taken December, 1940. Roll 15, Exposure 1





Flocks of Wild Canada Geese in Flight over Blackwater Refuge just after taking off from wheat fields planted by refuge personnel.

Taken January 20, 1941

Roll 16, Exposure 2 above 3 below



Looking East from Lookout Tower on New Dike showing pond area to be flooded, and part of dike already in place. Fires are stumps being burned to prevent tannic acid formation in pond waters. Dragline is to be seen working in background.

Taken January, 1941 Roll 16 Exposure 4





Dike Construction for Pond Area #3, showing various types of sodding of Spartina patens, in place on dike slopes. Sodding is done in strips where there is insufficient material to cover the slopes entirely. Taken December, 1940.

Roll 16 Exposure 5 (above) 6 (below)



Progress made on construction of dwelling for Tenant Farmer. Floors and sides of house are all double thick with a layer of 15# asphalt felt between.



Steps in reshingling exterior of Refuge Manager's dwelling with asbestos shingles. Left side of photo shows old weatherboard with 1"x2" strips in place to plumb new shingles and receive nails. Right side above shows asphalt felt in place on 1"x2" strips, and right hower side shows asbestos shingles in place. Inside metal corner strip application is shown at corner.

Taken January, 1941. Roll 16, Exposure 8
Exposure 7 (above)





Two views of trapper's cabin in marsh on Government marsh land.

Taken January, 1941.

Roll 17 Exposure 1 (above)
2 (below)





Left. Collecting muskrats on marsh from trapper. Trapping inspector has graded muskrats as to color and size, and made out a receipt for same, and is now assembling trapper's catch in individual sack. Taken January, 1941. Roll 17, Exposure 3.

Right. Muskrat skinner and stretcher, skinning muskrat in fur shed after it has been brought in from the marsh. Most local workers prefer to skin the muskrats on their laps. Taken January, 1941. Roll 17, Exposure 4.



A section of the drying room in the fur house, showing muskrat skins being stretched on lower tiers. Upper tiers contain empty stretchers. Note that muskrat hides are stretched with fur side inside, and are kept parallel so that the flesh sides do not touch, as this causes softmess and rot. Taken January, 1941. Exposure 5, Roll 17.



Trapping Inspectors employed at the Blackwater Refuge. Reading from left to right, Vernon Wheatley, Gillis R. Todd, Joseph A. Willey, Sidney S. Keyes. Taken January, 1941. Roll 17, Exposure 6.

# CAMBRIDGE OUTDOOR LIFE SHOW

AND

### **Second National Muskrat Skinning Contest**



Courtesy VERNON S. BRADLEY

Cambridge Maryland, Jan. 31st and Feb. 1st, 1941

AT THE ARMORY

CONDUCTED BY

CAMBRIDGE CIVIC COMMISSION

WBOC: FRIDAY & SATURDAY 8:30 to 9:00 P. M.

### PROGRAM

WFBR: SATURDAY 1:45 to 2:45 P. M.

Friday, January 31, 7:00 P. M. Exhibits and added attractions at the Armory. Special Log-Chopping Contest. Address by Talbot Denmead, U. S. Fish and Wildlife Service.

Saturday, February 1, 1-2 P. M. Maryland Outdoor Life Federation Regional Meeting and Luncheon at the Cambridge Hotel. Address Edwin Warfield, Jr., Chairman Maryland Conservation Commission. J. Hammond Brown, toastmaster, Chairman Upland Game & Fish Commission. 2:30-4:30 P. M. Exhibits and added Attractions. 7-11 P. M. Exhibits, added attractions and Second National Muskrat Skinning Contest. Address by Frank Ashbrook, Chief U. S. Fur Resources.

### Conservation Exhibits

Pioneer Point Game Farms, Maryland Outdoor Life Federation, State Forestry, Federal Soil Erosion, Upland Game and Fish Commission, Cambridge Yacht Club, Maryland National History Society, Crapo High School, Maryland Conservation Commission, Blackwater National Wildlife Refuge, Fur Animal Field Station, Brannock Mink Farms, Hoopers Island Gunning Club and Cambridge High School.

### Commercial Exhibits

Phillips Hardware Co. Eastern Service Corporation. Herbert Hearn Hardware Co. Animal Trap Company of America. Chesapeake Bay Fishing Fair Asso. Eastern Shore Gas Corporation.

### Added Attractions

Chief "Little Owl" Direct Descendant Nantizoke Indians, Original Inhabitants Dorchester County, Md. McLaren, Worlds Champion Wood Chopper. Major Blackburn and his Archers. Baltimore Stellar Skating Trio. The Three Muskratters. Native Products Fashion Show. Human Battering Ram.

### Cambridge Outdoor Show Committee

Emmett Andrews, Principal Cambridge High School, Chairman: Dr. Robert Weygand, President Cambridge Rotary Club; Dr. Herbert Dozier, Federal Biologist Blackwater Refuge; Fred P. Mc-Briety, See'y-Treas., Cambridge Business Men's Ass'n; David Black, Manager, Blackwater Refuge; Fred Malkus, County Representative Farm Security; Miss Pauline Hirst, Art Instructor, Cambridge High School; Charles Walls, Jr., Personnel Staff, Phillips Packing Co.

### Maryland Outdoor Life Federation

Merle E. Towner, Pres.

Granville Swope, 'Sec'y.

### Maryland Conservation Commission

Edwin Warrield, Jr.; Robert Harrison, Allen Sollars; Capt. Amos Creighton, Commander Patrol Fleet; Dr. Reginald Truitt, Director Chesapeake Bay Biological Laboratory.

### Maryland State Game And Inland Fish Commission

E. Lee LeCompte, State Game Warden; Richard T. Norris, Chief Deputy Warden; Harold Smith Kolmer, Secretary; Frank L. Bentz, Chief Clerk.



### TYPICAL MARSH SCENE SHOWING MUSKRAT HOUSES

The muskrat is the farmers greatest winter crop. He uses his body for food under the commercial name of "marsh rabbit" and milady uses his fur for adornment in the guise of Hudson seal. Despite the relentless hunting by his enemies, including trappers, he keeps on living in his house by the side of the road and remains a friend to man.

### Judges Of Muskrat Skinning Contest

Charles H. Seward, Cambridge, Md.; Mrs. Henrietta G. Bennett, Cambridge, Md.; Earl S. Harris, Hancock's Bridge, N. J.

#### Timers

James Busick, Edward Walter and Howard Evans, Cambridge; Charles Hurley, East New Market; Clay Webb, Jr., Vienna.

### Donors Of Prizes

\$100 In Cash Prizes ..... Animal Trap Co. of America
Also Six Traps To Each Contestant
Skinning Knives .... Herbert Hearn Hardware Co.
Hand Axe .... The Phillips Hardware Co.
Door Prize .... Mrs. Henrietta G. Bennett

### City Of Cambridge

Irving P. Jackson, Mayor; Granville Hooper, D'Arcy Davis, Daniel Wright, Jr., Guy McWilliams, H. M. St. Clair—Carroll L. Dail, Clerk.

Maryland State Department Of Forestry

F. W. Besley, Karl E. Pfeiffer, Walter J. Quick, Jr., Joseph T. Rothrock, William E. Seeders, Charles W. Bayles, Robert G. Dennis.

### A STATEMENT OF APPRECIATION

On behalf of the Cambridge Civic Commission I wish to express our deep appreciation for all that has been done by the various organizations and individuals in making this, our first Outdoor Show, possible.

EMMETT ANDREWS, Chairman.

## TO THE VISITORS OF THE CAMBRIDGE OUTDOOR LIFE SHOW

Many of you are visiting Cambridge for the first time. We hope your impressions are such that you will want to return. Before leaving we ask that you take a turn about town. Circle the Boulevard section if you have your car. This trip will take you by one of the country's most distinctive yacht clubs. On Riverside Drive your eyes will scan water to the limits of the horizon. There is no town on this Eastern Shore, and very few anywhere that has a body of water comparable to the Great Blue Choptank. Many of you are from large industrial cities. You, no doubt, like many others look forward to the time when you can retire from the noise and the dirt of the large city to the peace and quiet that is the heritage of the Cambridge native. Possibly you will never get around to it as things put off are often never done. Consider therefore, whether you should not make this move before you are too old to enjoy it. Doubtless, the very business which now furnishes you with a livelihood, or some part of it, could be transferred and carried on here.

By no means should you overlook the possibilities of this community for an industrial site. Your markets may be distant, but the expense of shipping is greatly off-set by an abundance of labor; climatic conditions; and a general lowering of costs, as compared to that to which you have been accustomed. The Cambridge Business Men's Association will be glad to answer any inquiries along this line, but while you are here see for yourself.

COMPLIMENTS OF

The Cambridge Business Men's Association

Don't Forget To Shop In Cambridge

