

## ROUTING SLIP

## DIVISION OF WILDLIFE REFUGES

DATE: 11-25-1941

✓ MR. SALYER  
 ① ✓ ~~MRS. WOODIN~~  
 ✓ ~~MR. ELMER~~  
 MRS. GARVIN  
 ✓ ~~MR. DUMONT~~

JS  
Whor  
ACE 7/2  
PAD 2/13/42

## SECTION OF HABITAT IMPROVEMENT:

~~Mr. Kubichek~~~~Mr. Smith~~~~Mr. Griffith~~

Miss Cook

RJD 3/27/42  
PEG 11/27/41  
zwe 11-28-41

## SECTION OF OPERATIONS:

## SECTION OF ERA:

~~Mr. Krummes~~~~Mr. Gustafson~~

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~~Mr. Regan~~~~Dr. Bourn~~

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## SECTION OF LAND MANAGEMENT:

## STENOGRAPHERS:

~~Mr. Farnshaw~~~~Mr. Ackerknecht~~~~Miss Whorley~~

## SECTION OF STRUCTURES:

~~Mr. Taylor~~

## REMARKS:

Blackwater Quarterly  
August-October 1941

Return to:

Div. Files  
Wildlife Refuges



Blackwater National Wildlife Refuge  
Quarterly Narrative Report  
August September October 1941

I. General.

A. Weather Conditions.

	<u>Snowfall</u>	<u>Rainfall</u>	<u>Max. Temp.</u>	<u>Min. Temp.</u>
August		3.43	95	51
September		.016	93	42
October		1.948	99	29
TOTAL		5.394	Extremes- 99	29

Abnormally dry weather continued for this period, taking the three months as a whole. The following quotations taken from U.S. Weather Bureau synopses, are indicative of conditions. Week ending Sept. 16 - "This was another dry sunshiny week, with a mean temperature 3 degrees above normal.----Grasses and some late crops were affected adversely by the prolonged dryness....Pastures are dry, short, and poor..."

Week ending September 23 - "...No rain has fallen since the tenth of this month. Dry weather has prevailed since the 20th of August. The weather of the week was favorable for maturing and harvesting crops but unfavorable for crop growth. Rain is needed badly for late potatoes, pastures and grasses, fall crops, and plowing. ...Springs and wells are low.... Late potato plants are in bloom in the eastern division and are showing the unfavorable effect of prolonged warm and dry weather.

Week ending Sept. 30 - "Present dry conditions are the worst since 1930. "

Week ending October 7 - "This week was featured by hot weather, unprecedented for intensity and duration for so late in the season. Maximum temperatures were between 95 and 100 degrees on the 5th, 6th and 7th in the central and eastern divisions (Maryland and Delaware), the highest of record for October. The week was dry and sunshiny. Scattered very light

showers fell on the 1st and 2nd; they amounted mostly to a trace in the eastern and central divisions but to a few hundredths of an inch in western Maryland. The drought continues. The average rainfall last month was 0.5 inch for Maryland and 0.2 inch for Delaware, the least in September since 1884. Pastures continue dry and brown, except poor to fair in the Allegheny Mountain highlands. Livestock is being fed. The ground is dry and hard. Springs and wells are low or dry....Late potato tubers are injured by the drought, are small, and are dormant in the central and eastern divisions..."

Week ending October 14 - The hot weather of the previous week ended on the 8th; cooler weather followed, but with temperatures moderately warm for the season, except cool for the season on the 11th. ...The drought continues..."

Week Ending Oct. 28 - "This was a sunshiny week. The weather was mild, except cool during the 24-26th and turning colder on the 28th. Freezing temperatures occurred and damaging frost formed during the night of the 25-26th in western and north-central Maryland. The lowest temperature at Chewsville in the morning of the 26th was 22 degrees. Frost formed also during the night of the 25-26th in the other divisions. A general beneficial rain fell on the 27th. It was light, except moderate to heavy over the southeastern portion of the Eastern Shore. The amount was 0.20 inch at Washington; 0.21 inch at Baltimore; 0.24 inch at Mt. Savage Summit; 0.59 inch at Snow Hill; 1.09 inch at Delaware Breakwater. Springs and wells are low or dry. ...."

The above weekly bulletins of the Weather Bureau for this area are mailed out during the growing seasons. For other periods of the year the National Weekly weather and crop bulletin is available. Our station is now being listed by the weather bureau on their Monthly Meteorological Summary.



B. Water Conditions.

In general, during this period, water was low both in the rivers and in the ponds. The low tides in the rivers prevailed due to lack of sufficient easterly winds, and the fact that neap tides in combination with the usual tides prevented high waters from coming up the river to the refuges. In the ponds, lack of precipitation, and unusually dry weather created conditions of drought which were probably greatest since the establishment of the refuge. Freshwater ponds at the headquarters were almost entirely dry<sup>for the first time</sup> since their building, having only a small narrow, shallow stream or body of water left in the center. Last year at this time the ponds were fairly dry too, but not nearly to so great an extent. No water entered the new freshwater pond area, as there was almost no precipitation. It is expected that this condition will be remedied during the winter and coming spring. Toward the latter part of October, high tides worked up the rivers, and relieved the situation somewhat.

II. Wildlife.

A. Waterbirds.

1. Populations and behavior.

(a) Species. Semi-palmated Plover were first seen at the refuge on August 12 at the headquarters area. They were again seen on the 21st, then on the 22nd of September, and last seen near the end of September on the 26th. Their peak concentration was on the 24th of September.

Greater Yellowlegs were first seen on July 24th, and at the end of October were still prevalent on the refuge. This shorebird appears to be the one most in evidence at this time of the year, and is most widely scattered throughout this area. Peak concentrations appeared to be about October 9th. Most on the refuge at one time were about 600.

During the third week in August, a family of 4 Florida Gallinule was seen on the Shorter's Wharf Road just south of the refuge, and seen again every once in a while for about a month thereafter.

Green Herons were fairly abundant on the refuge. They breed on the refuge. They were first seen in May, and last seen in the latter part of October.

Least, Semi-palmated and Spotted Sandpipers were first seen in July, on the 24th, and last seen about the middle of October. They frequented the refuge in fair numbers, containing about 1000 of each species during their peak concentrations, which were about the last week in September.

Great Blue Herons are fairly abundant here, and were still observed at the end of October. At their peak concentrations, there were about 75 on the refuge near the latter part of September.

Only 1 Willet was observed this year on August 21st. near the headquarters.

American Egrets, and Little Blue Herons were first observed June 12, and last seen on the refuge as follows: Little Blue Heron-October 5, American Egret-October 24. Peak concentrations of Little Blue Heron were about the middle of September, and of American Egrets September 24 to 27. The greatest number of American Egrets on the refuge at any one time was about 200.

About 30 Pectoral Sandpiper were observed on August 21, and seen off and on for about 3 weeks thereafter.

Black Crowned Night Herons were first seen on August 22, and were still observed at the refuge at the end of October. Peak concentration was about September 24 when 20 were seen in one flock.

Flocks of 20-40 Dowitcher and Sanderling were observed September 19 and 22 and up to October 7.



Since Black Ducks and Blue Wing Teal nest on the refuge, it is somewhat difficult to distinguish between local and migrant flocks. However, it is thought that the first migrant ducks of these species were observed on the refuge on September 5 to 17th. On the 27th approximately 5000 Blue Wing Teal were observed along the Blackwater River, and 300 Black Ducks. On the 25th of September 2000 Black Ducks were seen along the same river. 1000 migrant Mallards were also seen at that date, the first observed this season. On October 4 some 6500 Blue Wing Teal were observed, and probably on the entire refuge at this time, there were 8000. ~~At this time approximately~~ Blue Wing Teal were last seen on November 4th. Black Ducks are still on the refuge at the end of October, and the peak concentrations will probably occur in November.

Pintail were first observed on the refuge October 7, although it is probable that they had arrived earlier. Their peak concentrations have not yet been reached. Fifty were seen on October 9th, 40 on the 28th, 60 on the 17th, 1000 on the 29th.

Migrant Canada Geese were first observed in a flock of 30 on October 7. They were still on the refuge at the end of October. Their peak concentration has not yet been reached. During the latter part of October, there were some 450 on the refuge.

Only 3 or 4 scattered Coot were observed, the first being seen on October 12. There will probably be more in November.

On October 19 Ruddy Ducks were first observed. There were 12 in Barbadoes Pond, which is the largest flock seen on the refuge so far. They were observed in the same location for about two weeks longer.

Pied Bill Grebe were first observed October 9. They are seen singly and in groups up to 4 or 5. They are still in residence on the refuge.

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The first swan of the season were observed on the refuge on October 30, when 6 were seen in Harper's Pond. Larger flocks were observed on succeeding days, as they migrated south.

✓  
Baldpate were first observed about the middle of October. On October 30 some 500 were seen, and they continue to increase in numbers in the succeeding month.

✓  
Two Wilson's Snipe were observed on October 9th. They appear to be most prevalent in the southeastern part of the refuge. Up to twelve were seen on succeeding days, and they were still present at the end of October.

(b) Groups.

Waterfowl this period appear to have been present in greater variety than last year, or else there were more of some of the species, so that they were more easily noticed. The general trend of population still seems to be on the upgrade, although the increase over last year is not so very much - probably 5 to 8 percent. The migrant waterfowl appear to prefer about the same shallow ponds as last year. However, more of the ponds on the refuge are being used this year. The headquarters fresh water ponds are used very little because there is very little water in them. Feeding habits of the waterfowl are about the same. They prefer the Wigeon grass (*Ruppia maritima*), which is present on the refuge in most ponds. Some *Potamogeton perfoliatus* is present in one pond, Beargarden, and this too is used to some extent.

Due to the low waters this season, shorebirds were very much in evidence at various times, feeding on the mud flats. They tended to flock together sometimes several species being found in a group at a particularly choice feeding ground. The dominant shorebird was the Greater Yellowlegs, as they were seen in goodly numbers, and throughout the refuge.



Gulls and terns too were very much in evidence. The gulls were observed feeding on the mud flats, and in the shallow ponds, in flocks numbering up to 60. Herring and Ring-billed gulls were seen. Also Forster's Terns, Caspian Tern, Least Tern, Common Tern, and the Laughing Gull. The terns dived into the waters of the rivers and ponds after their fish prey, with apparent little regard for adjacent observers on the land or in boats. There was sufficient food to keep these flocks on the refuge for the entire period. Unusually large numbers of minnows were observed in the rivers of the refuge.

## 2. Food and cover.

There has always been sufficient cover for waterfowl on this refuge. Food is not present in sufficient variety to attract all the ducks and waterbirds desired, but there has been <sup>an</sup> abundant supply~~xxx~~ of Wigeon grass plants containing the desired fruit. The plant itself is also eaten and relished. The arriving Canada Geese have on occasion made use of the fallen seed in the harvested small grain fields, as have the Black Ducks. The Geese, too have grazed green growth on some of the fields once in a while. In the evening the greater part of the geese in the northern part of the refuge pile in to one of the former wheat fields near the headquarters, and spend the night there. No supplementary feeding is being done, although some grain is used in the trapping and banding program, and some feed is put out for the half-wild flock of Mallards and Geese at headquarters.



B. Upland-game Birds.

Woodcock were not very much in evidence on the refuge this season. So far only two Woodcock have been observed. It is thought that more will be seen later on.

Quail were more numerous this year than in the past three years. It is estimated that there were about 500 quail on the northern part of the refuge near the farm fields and woods margins. Coveys of twenty-odd were seen at various times, and one covey of 35 was seen on several occasions. There is sufficient food from weed grasses, and grains that have been left in the fields, as well as grains dropped on the ground during harvest season. Natural cover is sufficient. Cover left along farm fields, and ditches by the refuge program, is being used extensively.

Mourning dove were fairly scarce this year. Approximately 100 were observed around the refuge. It appears that they have not yet recovered sufficiently from past hard winters.

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

The red-fox appears to be on the increase. We have noticed them along roads at night on occasion. Also their deprecations on muskrat houses has been observed to be greater than in past years. It is estimated that there are about 150 Red foxes on the refuge grounds. Of course these animals travel fairly good distances, and they may be ten miles away from the refuge the day after they are noticed. A program has been started to take some of these animals off the refuge to help increase the muskrat population, and for research studies.

The raccoon is in the same category as the red fox. Raccoons have been on the increase. They have been noticed more frequently along the roads at night. Their footprints have been seen in increasing numbers in the marsh

and in soft places along the uplands. They too have been responsible for deprecations on muskrats, and breaking into muskrat houses, and the program for taking of red foxes also includes the taking of raccoon. It is estimated that there are about 200-300 raccoon on the refuge.

Like most small game, rabbits too have been on the increase this year. They have been seen frequently along roads, and in fields. Many have been killed by automobiles. Along the woods margins and the farm field borders and interiors of the refuge, there are a total of about 600 rabbits(estimated). They have sufficient cover and food, and appear to be thriving ~~th~~ at present.

The squirrels on the refuge are also present in good numbers. Of the two species, the local large gray squirrel, and the Bryant's fox squirrel, the total population appears to show that neither is much greater in numbers than the other. There are about 250 of each species on the refuge grounds, and many more in the immediate surrounding territory. On many occasions we have observed the squirrels crossing the road from our corn fields carrying an ear or nubbin of corn to their dens in the woods which is just on the other side of the road. It would appear, that with the corn they have managed to acquire, and the abundant supply of acorns, that the squirrels have sufficient food to last them through the winter. After conferring with local hunters, I find that an unusually large kill of squirrels was made this year, due to the bumper crop. And there are still many squirrels left for coming years.

We have not yet been able to tell definitely about the muskrat population, although present indications point to a decrease in this species. Last year some 10,000 were trapped. This year, so far, the sign is not as prevalent, and the number of muskrat houses erected to date is not as large as last year. However, observations made next period should be more conclusive. Natural conditions for muskrats have been satisfactory.



### III. Refuge Development and Maintenance.

#### A. Physical Development

1. Our WPA project again accounted for most of the improvements done on the refuge during this period. For the first two months we averaged 6 workers, and the month of October labor was increased to 8 men.

The remodelling of the headquarters residence was completed on the outside, painted, and new lumber installed in the porches. The farmer's dwelling also is completed on the outside with the painting all done, and a ~~xx~~ screened porch on the front. A barn was moved closer to the house, and a new roof covering ~~in~~ laid. At the headquarters the office building, boathouse, new boathouse, oilhouse, large implement building, and part of the fur storage building have been painted with either one, two or three coats of paint on the outside. All buildings have been given a coat of creosote on their cedar shingle roofs except the fur storage building, and the Fur Station garage. The boathouse for the Fur Station has been completed on the outside, and is being used. A roof of asbestos shingles has been laid. Work has been begun on a marsh shack for the use of trappers on part of the marsh, on Waterbush Island.

Trucks and farm implements were checked over and repaired, and work has been begun on refinishing and painting all the old office furniture that is now being used.

B. Plantings.

The approximately 40 acres of corn that had been planted last year <sup>spring</sup> has been cut and shocked, and husking has begun. About 240 bushels have been husked and stored in the grain bins. Also some 15 acres of land has been plowed and disked up and planted to wheat. This will serve as goose forage mostly, and also as a cover crop for marsh plants to be planted at the margin of the new freshwater pond, when some water becomes evident in the pond area.

IV. Public Relations.

Recreational Uses. There were 258 visitors who stopped in at the refuge during this period. The following officials also visited the area:

August 6 - J.R. Weeks, U.S. Weather Bureau director of Baltimore- Helped install weather station.

August 19 - C.E. Kellogg, C.C. Presnall, W.H. Armstrong - All Bureau personnel who discussed the muskrat work, and research and management of wildlife in general.

August 24 - John H. Sutherlin - Discussed refuge management problems

August 28, 29, 30 - John H. Sutherlin - Discussed management problems.

August 31 - F.M. Uhler - Took observations on marsh sample plots.

October 3 - Wm . Krummes, F.G. Ashbrook, and C.E. Kellogg - Discussed the problems of the muskrat-trapping program for the coming season

October 30 - C.W. Leveau, W.E. Crouch, Alan W. Souder - Made inspection of refuge boats and outboard motors. Took them out on FWS-109, Peetweet for demonstration, and ran Neptune outboard motor for their observation.



**B. Violations.**

Several days before the end of October, a brief check was made of certain adjacent hunting blinds southwest of the refuge. One area was found to be baited, and it was posted. Another was suspected, but no illegal conditions were found. This area will be checked again later in the season. No violations were found, nor any persons apprehended.

**V. Economic Uses of Refuge.**

**Cooperative Farming.** A new tenant was found for the west refuge farm, and he moved in this period. The dwelling house was just about ready for him, although it needs work done on its interior. Since the farmer could not be included in the Federal wheat program he did not plant any wheat this fall. However, he has a good assortment of modern farming tools, and is going to break up sufficient land this fall and next spring for spring planting so that he will have a good start on his farming program at once.

The other permittee who uses refuge land near the headquarters has been informed that two of the fields he formerly rented are being taken back for tilling by refuge personnel, as his lease has expired. His corn crop and wheat crop has been harvested, and we have received our share of the harvest. At the present time, the fields he has untilled for over winter are mostly in clovers or lespedezas. All of the fields are in good condition, and will be ready for early work next spring.

*David V. Black*

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