

ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: 9-25 1944

MR. SALYER

MR. ELMER

SECTION OF HABITAT IMPROVEMENT:

Mr. Griffith

Dr. Bourn

Miss Cook

REG 10-2

WSB 9/26/44

Inc 10-3

SECTION OF OPERATIONS:

Mr. Krummes

Mr. Regan

Miss Baum

WT 10/10

TRGR 10/2/44

SECTION OF LAND MANAGEMENT:

Mr. Earnshaw

Mr. DuMont

B

PAO 10/23

SECTION OF STRUCTURES:

Mr. Taylor

STENOGRAPHERS:

WWT 9/30/44

REMARKS:

BRIGANTINE NARRATIVE REPORT

MAY-AUGUST 1944

Return to: Hab. Improvement

Narrative Report
Brigantine National Wildlife Refuge
May, June, July, and August, 1944

I. GENERAL

A. Weather Conditions.

	Snowfall.	Precipitation.	Maximum Temp.	Minimum Temp.
May,		-2.64	81*	48*
June,		x1.17	91*	51*
July,		-2.43	92*	60*
August,				

The above records are taken from reports of the U.S. Weather Bureau at Atlantic City, N.J.

B. Rainfall for this period as indicated by the above reports has been below normal, and we have experienced a rather dry season. Despite this fact there has been a steady overflow of water on the spillway at Lily Lake. My estimate is that this overflow would average 6,000 gallons per hour. The overflow from Lily Lake empties into Doughty Creek and is the chief source of our fresh water supply.

We have endeavored to maintain the water levels in the ponds constructed on the refuge at six inches below the marsh level. This has been controlled by plugs built into the feeder ditches leading into the ponds. However receding high tides have washed out many of these plugs and now the water flows freely back and forth into the ponds with each tide. The daily tidal actions keeps the water in the ponds free and clean of objectionable growths.

C. Fires, We have had no fires on the refuge during this period. While it has been extremely dry there have been no serious fires in the vicinity of the refuge. We have kept a close contact with the organized fire fighting forces of the community.

II. WILDLIFE

A. Population And Behavior, The Clapper Rail is our chief game bird that nests on the refuge. I estimate that 350 pairs of these birds nested on the refuge this season, and raised about 2000 young. These rails are considered a very choice table bird by local gunners, and will provide many meals for home consumption.

Ten pairs of Black Ducks nested on the refuge, and adjoining lands, this year, and brought out 50 young ducklings. Many Black Ducks also nest nearby the refuge along the Mullica River and tributaries. Recently I have counted over 200 Black Ducks in one evening along the Mullica River. These ducks come to feed in the ponds scattered about the refuge where they are free from any molestation.

Three pairs of Wood Ducks nested along Doughty Creek, and I have counted 12 young ducklings in the creek at one time. These birds also nest along the Mullica River, and Wading River nearby to the refuge. In my opinion Wood Ducks have shown a slight increase in this section this year.

The Spotted Sandpiper also nested on the refuge, and raised quite a number of young. During recent checks on birds using the refuge I have counted 150 of these birds at one time.

The Piping Plover is another bird that nested on the refuge, and I found 12 nests of these birds on the places where gravel fill had been pumped in from channel dredgings. Also found two Willets nests with two eggs each in them. The Willet nests in greater numbers at places along the Delaware Bay near Fortescue, N.J.

I found two Woodcock nests along Doughty Creek, but from the numbers of birds observed during their evening flights I feel that quite a number of these birds nested in this vicinity. Locally I feel that they have held their own in comparison with past seasons.

On July 6 I noted the first Fall Migration of our shore birds. On that day I observed 75 Curlew on the refuge meadows. From my observations of many years experience along the Atlantic Coast this was a very early appearance of the birds in these parts. Other shore birds have followed along from time to time, and during the past few days large numbers of the different species have been observed in large numbers as indicated on Form NR-I. Here again I feel that the present migrations compares favorably with the past few years.

Because of the restrictions placed upon gasoline I have had to limit myself to one trip per week with the Motorboat FWS-187, for patrol and inspection purposes. On these trips during the past few weeks the numbers and species of birds observed would average about as follows; 150 Curlew, 100 Black Bellied Plover, 25 Golden Plover, 100 Yellow Legs, including both the Greater and Lesser species, 500 Knots, 500 Dowitchers, 1500 Semi-Palmated Plover, 2000 of the smaller Sandpipers of varying species, 300 Sanderlings, 100 Turnstones, And an occasional Willet and Godwit. The birds all appear to be in a good healthy condition.

B. About 1500 Laughing Gulls nested on and about the refuge. These birds have nested in these parts for years, and many young gulls are produced yearly. They arrive in this section during the forepart of April, and leave again during the month of September. The Herring Gull is most common here during the winter months, but I have observed about 100 of these gulls here all through this Summer season. They arrive here in large numbers about the same time that the Laughing Gulls leave us. About 100 Black Skimmers spent the Summer around the refuge. Also about 200 of the Common Tern nested on the refuge this past season.

We had about 50 Great Blue Herons using the refuge during the summer. And about 25 of these birds also spent the past winter on the refuge. I have observed about 100 American Egrets using the refuge during the past summer. These birds appear to be on the increase in these parts. We also have 25 of the Little Snowy Herons on the refuge at the present time. They are easily distinguished from the larger Egret. About 500 Black Crown Night Herons use the refuge for night roosting, and it is interesting to watch them as they come onto the refuge during the evening hours.

C. Food And Cover. We have a good supply of Widgeon Grass (*Ruppia Maritima*) in the salt ponds scattered about on the refuge, to furnish food for the wild-fowl. Widgeon Grass is common in the salt ponds on the marshes up and down the coast. There is also an abundance of Fidler Crabs in the ditches and creeks along the marshes. Killifish, small crabs, mollusks, and other crustacea also provides a good supply of food.

There does not appear to be any improvement in the condition of Eel Grass (*Zosteria Marina*) in our local bays. I have not found any samples in either the water, or on the drifts along the shores. Not so many years back this grass was so abundant that hunters would pile it up on the shores for hunting blinds. And it was impossible to run a motorboat over some of the flats without stopping occasionally and reverse motors to clear the propellers of grass. In parts of Barnegat Bay there are favorable growths of the grass to be found. This past season I found samples 30 inches in length. So long as Eel Grass hangs on in Barnegat Bay I expect we may be hopeful of its return again at some future time.

I have made several plantings in our local bays from grass taken from Barnegat Bay. I have planted in mud balls, separate plants, and in small sods, but in each instance the plants have survived but a few days and then wilted away. Apparently our local waters are not yet suited for the grass to reestablish itself in them. Bay Cabbage, or Sea Lettuce, continues to be very plentiful in all our bays.

D. Disease. I have not found any dead birds, or any indication of disease among the birds. Neither have I had any reports of any disease or dead birds in this section. All the birds that have come under my observation appear to be in a good healthy condition.

Upland Game.

I. Population And Behavior. We have a good supply of native Quail hereabouts, and these birds have had a good breeding season. I have observed at least ten covies of young birds on and around refuge headquarters so far. They have become quite tame and come to feed at the bird bath on the lawn along with other birds. About 25 Mourning Doves also have come regularly to feed at this same place, and it is interesting in the mornings and evenings to watch the different species of birds gather together here for their food. Also at times a Cottontail Rabbit will hop out to join up with the birds. We have had Doves, Quail, Cardinals, Catbirds, Mockingbirds, Brown Thrashers, Thrushes, Starlings, and Blackbirds all feeding together at one time, There being as high as 75 birds feeding at one time. I have also observed as high as 15 young quail in a covey of young birds.

We have a few Rough Grouse about that are to be found in the deeper under brush, and swampy areas. These birds are not at all very plentiful in these parts and are generally difficult to locate. However I have flushed ~~2~~ 2 and 3 birds in one day.

The State Fish And Game Commission has made much effort to establish the Ring Neck Pheasant in Southern New Jersey. But for some reason or other these birds do not thrive in this section as one would expect. On the other hand they do very well in Northern New Jersey.

The Cottontail Rabbit is quite abundant in these parts, and no doubt it furnishes the most sport and recreation for local hunters, and also provides many meals on the family table. In spite of extensive hunting it continues to hold its own in these parts. Gray Squirrels also are quite plentiful, and also hunted to considerable extent, and squirrel pot pie is a tempting dish to set on the table. The annual take of our small game birds and animals provides many meals for the hunters and their friends that helps to conserve our domestic meat supply to aid in the winning of the war.

II. Fur Animals. We have about 200 Muskrats on the Brigantine Refuge, and in spite of extensive trapping in this section they appear to holding their own. When we shall have acquired some of the marshlands included in the project no doubt but that our muskrat population will become greatly increased, and we shall be able to add to our annual take of fur. This past season 252 muskrats were taken under permit from the Killcohook Refuge near Salem, N.J. For which the Government received a net profit of \$444.90 for its share. We also have a few mink and otter on the Brigantine Refuge, but hardly sufficient numbers to warrant any trapping.

III. Predacious Birds. Our most common predator is the common crow, and in my opinion they do considerable damage to other birds by taking their eggs, and also young birds. They have become very numerous in these parts, and little or no effort is made for their control. We also have several pairs of Bald ~~Head~~ Eagles that have remained in these parts during the past season.

IV. Fish. Many tons of fish have been taken from our local bays by commercial fishermen, chiefly of the salt water species. In addition many hundreds of pounds more are taken by sport fishermen as a matter of sport and recreation. This take also adds to our food supply as well as providing recreation for our people. Hundreds of people also come to our shores to catch crabs that are used for food purposes. This season I feel that our local take will compare favorably to past seasons. Fish common to these waters are the Croaker, Weak Fish, Shad, Herring, Mackerel, Bass, Perch, Kingfish, Flounder, Fluke, Blue fish, Rockfish or Stripped Bass, Eels, and Cod Fish. Clams and Oysters are also plentiful in our waters. The use of these fish helps to add greatly to our food supply.

III. REFUGE DEVELOPMENT

A. Physical Development. During this period we have maintained about one mile of roadway. As part of the road crosses our marsh we have had considerable trouble from washouts by high tides. The Atlantic County Highway Department has been most kind to us in letting us get gravel from their pit to put onto our road. They even loaded our truck with their power shovel along with their own trucks. This was a great saving to us so that we have been able to put 50 loads of gravel on the road. Of course what is really required is that the whole roadbed be raised to about four feet above the marsh level, so that the monthly high tides would not run over the road. It is when these high tides are receding that the washouts occur in the road. These high tides also deposite large amounts of debris that requires a great deal of time to clear away in order to keep the road passable.

We have also placed Lightning rods on the dwelling and the service building, which should provide greater protection against damage from lightning during electrical storms, of which we have many during the summer months. To date we have been unable to secure telephone service into headquarters, which is quite a handicap to us. The lightning rods and other equipment were used material that was shipped here from the Moosehorn Refuge in Maine, but should serve a good purpose until such time when we may be able to secure new materials.

B. Planting. About four acres of field corn were planted on a share basis and we should receive enough corn from this to provide for any emergency feeding that we may called upon to do this coming winter. Beside the corn we sowed millet around the borders of the plowed field to provide winter food for Quail, and other birds.

Fifty Cedar trees, and 12 Black Walnut trees, were planted around the headquarter buildings. In time these should provide shade, as well as a wind brake for the buildings. Two Song Sparrows built their nests and brought out their young in a couple of these trees planted last Spring, and in time no doubt but more birds will be attracted to headquarters. We plan to set out more trees this Fall.

C. Collections, Eel Grass has been collected from Barnegat Bay and transplanted into some of our local bays where the Eel Grass once flourished. So far these plantings have not survived although we have tried different methods of planting that have been suggested. It appears that condition of local waters are not favorable as yet for this grass. Widgeon Grass has been transplanted from the natural salt ponds into the hand made ponds dug about the refuge, and here again this grass will thrive for a few days, but only to die out in time.

IV. Public Relations.

A. Recreational Uses, I estimate that two thousand people have come to the refuge this season to catch crabs for food purpose, and to spend the day out of doors. These people use the docks at Doughty Creek, and Turtle Cove. I would further estimate that about ten thousand crabs are taken to provide a special treat on the home table. Others come to study bird life and I hear many favorable comments on our proposed projects. We have had visitors from New York State, Pennsylvania, and Delaware, who came here for first hand information on the life and habits of our water birds.

B. Educational Work. I have attended meets of the Atlantic County Sportsmen's Association, and we have had the hearty cooperation of this organization in passing on information contained in our New Releases, and other information sheets. The local Press have also given us good space from time to time. Also posters that have been received from time to time have been placed in public places for the information of the general public.

C. Refuge Visitors, Game Management Agent Robert Hawley, and Deputy Shuffler have been frequent visitors to the refuge, and we have always cooperated in working out local law enforcement matters. Our local State Game Wardens, Dana Saxton, Oscar Clark, Francis L. Jones, and Harold Crowley, also stop in at refuge headquarters to discuss local matters. And we have always maintained congenial relationship in connection with our work.

On June 7 Director Gabrielson was a visitor here and made an inspection trip about the refuge and adjoining vicinity.

On July 6, Regional Director Locke, Mr. Elmer from the Central Office, and Mr. McNamara, and made a trip by motorboat around the refuge for purpose of information, And also inspection of refuge property.

D. Violations. We have not found any violations of either State or Federal Game Laws, on, or adjoining the refuge during this period. The cooperation of the general public in connection with our work has been fine. And as we reflect back for a few years we cannot help but be impressed with the improvement that is being taken in wildlife conservation and restoration.

V. OTHER ITEMS

A. Permission was granted to the Navy Air Force to place a target on the outlying part of the refuge along the Inland Waterway channel. The Navy has been using this target for over a year now and we have had an opportunity, to study the effects of the bombing noises upon our wildlife. So far I have failed to note any ill effect upon our birds in general. Strange birds upon first arriving in these parts will shy away from the noises, but in a short time they appear to become accustomed to conditions and will continue on in feeding, or whatever they may be doing at the time, with apparent satisfaction. And this seems to hold true of most of our birds that visit the refuge. I feel we have made friends of the Navy Personnel, many of whom love to hunt and fish. And they are going to return to civilian life with a much better understanding of the efforts being made by the Government in behalf of our wildlife resources. The use of the refuge for this purpose has helped to develop the good marksmen with bombs that our men have proven themselves to at the expense of our enemies. I happen to know that right now some of these boys who gained their experience on these grounds are at present over in the Pacific Ocean hitting their marks, and winning the battles, that will bring this war to a successful end for our nation.

I understand that the Army has abandoned the property at the former CCC Camp, FWS-2, at Port Republic, N.J. and I wish to recommend that our Service make application for transfer of this property over to the Fish And Wildlife Service for our use in the development of the refuge to be included in our post war program. The buildings are in good condition at present and soon as we should take over I expect that a custodian should be appointed to care for the buildings until they may be permanently occupied. I believe we should give this matter prompt attention.

At present it appears that before long there will be ample surplus equipment available left over from our war effort, much of which might be useful on our refuges, and especially on this refuge in our development plans. And we should make an effort to get some of it on hand while it is available.

August 31, 1944.

Albert Stadlmeir
 Albert Stadlmeir,
 Refuge Manager.

MIGRATORY BIRDS

Refuge Brigantine National Wildlife Refuge Months of May 1, 1944 to August 31, 1944.

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Black Duck,								10	5	50	100
Brant,						50	5/25/44.				
Canada Goose,						75	5/10/44.				
Mallard Duck,						50	5/3/44.	2	7	14	30
Wood Duck,								3	6	18	25
Curler,	750/44.	7/6/44.	8/1/44.	1,500	8/10/44.	100	8/31/44.				5,500
Clapper Rail,								25	8	200	2,500
B.B.Plover,	50	7/25/44.	8/1/44.	500	8/15/44.	100	8/31/44.				2,000
Dowitchers,	100	7/20/44.	8/1/44.	2,500	8/15/44.	150	8/31/44.				7,000
Golden Plover,	25	7/25/44.	8/1/44.	200	8/15/44.	25	8/31/44.				1,500
Knots,	100	7/15/44.	8/1/44.	2,000	8/15/44.	100	8/31/44.				7,000
Killdeer,								15	2	30	150
Piping Plover,								12	2	24	125
Sandpipers, smaller,	150	7/10/44.	8/1/44.	2,500	8/15/44.	1,000	8/31/44.				10,000
Turnstones,	100	7/25/44.	8/1/44.	1,000	8/15/44.	100	8/31/44.				2,000
Semi-Palmated Plover,	150	7/25/44.	8/1/44.	600	8/15/44.	200	8/31/44.				5,000
Yellow Legs, Gr.	50	7/25/44.	8/1/44.	300	8/15/44.	100	8/31/44.				1,000
Yellow Legs, Lsr.	50	7/25/44.	8/1/44.	350	8/15/44.	50	8/31/44.				1,000
Willet,	20	8/1/44.	8/1/44.	50	8/15/44.	15	8/31/44.				100
Woodcock,								2	3	6	50
American Egrets,	50	7/20/44.	8/15/44.	100	8/15/44.	100	8/31/44.				100
Laughing Gulls,								1,500	2	3,000	4,000

REMARKS: (Pertinent information not specifically requested)

Herring Gulls,											250
G.B.Heron,											50
Black Crown Night Heron,											500
Black Skimmer,								10	2	20	150
Common Tern,								100	2	200	300
Snowy Heron,	25	8/18/44.		25	8/18/44.	25	8/31/44.				25

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based upon 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 are to be omitted.
- (7) 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 manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

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

Refuge Brigantine National Wildlife Refuge Months of May 1, 1944 to August 31, 1944.

(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'd.	Estimated Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Doves, Mourning	100 Acres,	1	2	4		None	None	None	150	-These birds have shown considerable local increase this season) These birds scarce locally, Show Increase, Increase.
Grouse, Ruffed	100 Acres,		none			None	none	none	15	
Quail,	100 Acres,		10	100		None	none	none	250	
Pheasant, Ring N	100 Acres		none		75% M	None	none	none	15	

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.

