

OKEFENOCKEE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

SEPTEMBER - DECEMBER 1943

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OKEFENOKEE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

SEPTEMBER - DECEMBER 1943

I. GENERAL

A. Weather Conditions

	<u>Precipitation</u>	<u>Max. Temp.</u>	<u>Min. Temp.</u>
September	2.47	96	51
October	.05	95	31
November	1.31	87	29
December	3.27	87	15

The above data secured from official weather station at Waycross, Georgia.

B. Water Conditions

With only 7.10 inches of rain for the four months, the water standing at 120.40 at Cornelia at the beginning of the period gradually dropped till December 10, when the reading was 119.46, then some rains from December 14 to 31 raised the water to 119.83 on the gauge at this point. During the four months trips by boat from Cow House Island to Dinner Pond and Canal to Grand Prairie were not attempted a second time. During the same period in 1942 the gauge readings at Cornelia ranged between 120.52 and 121.90. The lowest water for this period in 1942 was twelve hundredths of one foot above the highest for the period in 1943. Some rains as the year closes allow us to hope that the law of general averages will give us enough water to make these areas accessible for the next few months.

C. Fires

Lack of precipitation during this period coupled with an overall deficiency of rainfall in this area during the preceeding eight months created the most hazardous fall fire season in several years.

There were four fires on Refuge lands during this period, three of which were small. The first occurred on October 3 in Lots 397 and 398 and was quickly brought under control. Mop-up and patrol con-

tinued for three days before the fire was out.

The largest and most stubborn fire since Okefenokee became a Refuge started on October 27 at the lower end of Strange Island. Unfortunately, it was into the swamp before help arrived and so few men were available for fire fighting that the fire in the swamp never was brought under control until it rained on November 8. The upland side of the fire was fought continually from October 27 to November 8, and only the cooperation of the Daugharty Bros., Suwannee TPO, Superior Pine Products Co., and local help, with the Fish & Wildlife Service, prevented the fire from spreading further and more rapidly than it did.

The third and fourth fires occurred on November 24; one on and near Lloyd's Island, which was suppressed with the aid of the Charlton County TPO; and the other on Lot 25 at the south end of the Refuge, which was suppressed with assistance furnished by L. Knabb & Sons.

In addition to the Refuge fires, there were a large number of fires all around the Refuge. Fire standby man Martin was busy in November checking and helping on fires near the northwest boundaries of the Refuge. On November 23, 24, and 25 Refuge personnel helped fight fire on Cow House Island between Ft. Mudge and our Lots 66 and 67. On December 12 Refuge personnel, after receiving an urgent SOS from the State Forest Service at Braganza, played an important part in bringing under control a fire that had jumped a railroad, U. S. Highway No. 1, and a County road, before it could get into the State Park Area (formerly Resettlement Adm.)

All of the above fires were either "set out" or resulted from gross negligence of parties unknown.

In spite of the acute manpower shortage and difficulties of securing equipment and materials, every effort has been and is being made to have our fire fighting organization fully equipped and ready for an expected high fire-hazard spring. Looking back over the records, we find that after the dry fall of 1940, we had ten fires in the spring of 1941. It seems logical to conclude, therefore, that the 1941 spring fire season will be as bad - perhaps worse than any since 1932 - unless we have abnormal rains between now and next June.

II. WILDLIFE

A. Migratory Birds

1. Populations and Behavior

For this period opportunity for observation being denied us to such an extent, by dry boat routes, any figures regarding populations of most of our water birds would be rather wild guesses. Water enough in Grand Prairie, parts of Chase Prairie, Sapling and

Honey Island Prairies for ducks and other water birds but lack of water between these areas prohibited travel to them by boat. The winter population of ducks may have arrived on time and not observed because of the inaccessibility of their usual haunts. No Mallards and Black ducks were observed before the second week in November, while some Ringnecks were observed a month earlier. And in early September some Bluwinged Teal were seen in their southward flight; some stopping for a few days in Okefenokee, and on September 8, Bryant Crews reported 21 Ringnecks which was most unusual.

In the areas covered more Woodducks were observed than were noted in the same areas for the same period last year.

Wood and White Ibises had, apparently, left us long before this period began but a number of Wood Ibises were observed between the 12th and 22nd of October.

Blue Herons and American Egrets were reported each month but trips through areas where most of these are usually noted were discontinued during the greater part of this period.

There seem to be more Wilson's Snipe in the Swamp this year. We will learn more of these when we can cover more ground.

With a few inches more water as the period ended, we are hopeful that during the next month we will be able to learn something of populations and comparative percentages.

Since Mourning Doves occupy areas where boats are not required, we have had opportunity to learn something about them, and they are certainly "coming back." They are in every field around the Refuge usually used by doves and they are now seen in greater numbers than last year.

Woodcocks are occasionally observed in the marginal areas but no change in numbers from last year was noticeable.

2. Food and Cover

No supplemental feeding - unless it be considered so with Mourning Doves where many fields near the Refuge supply peanuts, peas, beans, etc., but even the fields that have lain fallow and generally filled with what is locally known as "chocolate weed" that supplies an abundance of food in addition to some bur-marigold and other plants.

B. Upland Game Birds

1. Populations and Behavior

Immediately about the compound at Cornelia there are not as many Quail as last year and other areas of Refuge upland that have grown too rough are, apparently, not occupied by as many. Bobwhite hunters we have contacted say they do not find as many birds in the open woods as they found last year but do find them plentiful in the

branches and other low grounds.

Wild Turkeys are still increasing; they do not occupy the islands within the swamp, but are found about the swamp edges.

Last year we stated that there was something wrong with the Robbins - they had not appeared in anything like the number as the year before. This year they are as numerous as I have ever seen them. In traveling between Waycross and either Cornelia or Billy's Lake, Robbins are flying away from the road for almost the entire distance and they are all over the swamp.

3. Disease

We have observed nothing to indicate any disease.

C. Big Game Animals

1. Populations and Behavior

Nothing to add to, or "take back" from our last report on Deer.

While our black Bears do not hibernate they, for some reason, seem to have, at least temporarily, given the cattle a respite. We have heard of only two cows being killed by Bears in several months. It may be that of a number of Bears killed during that time some were the most destructive.

Bob Cats, apparently, are (or were) more numerous than we thought. Mr. Brown, of the Federal Aid Game Project at the north end of Okefenokee, has taken about 20 Bob Cats with traps or hounds in the short time he has been located there, and I would not say it is a particularly good season for Bob Cats.

3. Disease

All appear to be quite healthy.

D. Fur Animals

Raccoons are, as last reported, on the increase noticeably.

This is the season when Otters occupy boat runs and other waters where they are more apt to be seen and it seems they are all back with additions to each family. The few routes that can be traveled by boat are well populated. Sam Mizell saw 15 Otters on one trip up Minnie Lake run on October 12, although it was warm enough for 23 alligators to be up where they were seen on the same trip.

F. Fish

When the water in Okefenokee gets as low as it has been for the past few months, many small and some large fishes are destroyed by birds in addition to those ordinarily destroyed by birds, mammals and reptiles. But with many thousands of acres covered by sufficient water, we usually

find the fishes plentiful when the season and water are again right for fishing.

III. REFUGE DEVELOPMENT (Maintenance)

A. Physical Development (Maintenance)

No development projects have been undertaken during this period, but a considerable part of our energies have been expended on maintenance work. Among many jobs done were the following:-

Shelves were installed in the oil house; the office and laboratory given a thorough cleanup; and a large amount of general cleanup around the Cornelia headquarters accomplished. To solve the problem of rats entering the guest cabin, we installed a tight-fitting screen door with spring on the back door. This eliminated the need for a rodent-proof back porch.

Bridges were repaired on both the Cornelia and Jones Island roads. Every rain shows up new bridge defects, but repairs will be made as rapidly as possible.

Realignment of the Anhinga's motor and a motor tune-up job eliminated an annoying vibration and contributed to an increase in RPM. The outboard motorboat FWS-560 was removed from the water, scraped, repaired, and repainted. Two outboard motors were completely overhauled and placed in good operating condition.

Ford pickup truck 17269 was overhauled. Ford pickup truck 17272 was completely overhauled and after major repairs received the priming coat of paint. The finish coats of paint will be sprayed on shortly and it is hoped this truck will then be ready again for hard service.

Fire truck 17273 installations were completed and actual field use of the truck on three fires proved that it is an excellent piece of equipment for fighting fires in the forest conditions found in this vicinity.

Our old back-pack pump tanks were repaired where possible, but it soon became evident that further repairs were impossible. A dozen new pumps and a complete line of repair parts were obtained none too soon.

Just before the period ended, an investigation was made of work necessary to repair the board walk to Floyd's Island and the cabins on the island. Work on these projects will get under way early in January.

VI. PUBLIC RELATIONS

A. Recreational Uses

5127 Man days were used by fishermen and besides these 616 individuals used picnic facilities or made trips to see something of Okefenokee. Visiting the Refuge this period were Messrs. A. F. Miller and Maynard S.

Johnson on September 6; Messrs. Silver, Taylor, and Dittman October 16 and 17; Mr. Silver on November 15; Mr. A. F. Miller on December 31, for a couple of days; and on October 19, a party of County Commissioners from Nassau County Florida who came to Folkston as guests of the Charlton County Georgia Commissioners. The Charlton County Commissioners have kept our Refuge road up for us and are always pleasantly cooperative and for these we gave their Florida guests a trip into Okefenokee.

E. Fishing

Fishing conditions were fairly satisfactory till the last three or four months - water enough for fishes from other areas to keep restocked the waters open for fishing. The average catch was approximately 11 fish per man day.

F. Violations

No violations were reported for this period.

VII. OTHER ITEMS

A. Items of Interest

On one patrol up the north branch of Suwanee River to Pine Island, partly on foot because of low water, Sam Mizell reported that he saw more signs of Bears, Deer, Raccoons, Otters, and other wildlife than he remembers ever seeing on such a trip - said it looked as if wildlife generally had certainly appropriated that area, and said he saw at one place about 50 shells where Otters had eaten soft-shell (snapping) turtles and yellow-belly terrapins.

B. No photographs this time, but shall try to have some of interest for next report.

January 8, 1944.

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John M. Hopkins,
Refuge Manager

Refuge OKetenokees Months of Sept to December, 1943

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
American Coot - Great Blue Heron	2	9/1	9/1	10 to 20	to be seen on any trip	2	12/11				
Night Heron	3	9/1				4	12/31				
Wood Stork	1	9/20	none observed except 1 on 9/29			2	11/27				
Wood Duck	18	9/1	34 on 10/12, 7 on 10/13, 3 on 10/15, and 4 on 11/22								
Black Duck	10	11/9									
Ring-necked Pheasant	20	11/9									
Blue Wing Teal	5	9/7				36	10/22				
Canada Goose	21	stopped in area 9/28		100 on 10/2		5 on 11/4					
Mourning Dove	no est	9/1					12/31				2500
Woodcock	1	9/10				2	12/25				
Wilson's Snipe	9	11/15				20	12/23				

REMARKS: (Pertinent information not specifically requested)

the percentage of the area we were able to get over for observations was not sufficient to make estimates of any value. Bay and crews reported 2 ring-necked pheasants Sept. 8. then observed none till Oct. 9. Crews know ring-necked, but we wondered if these 2 were blue-bills.

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 OkefenokeeMonths of September to December, 1943

(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.
Bobwhite	nothing new						to report for this period
Wild Turkey	"	"	"	"	"	"	"

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.

Refuge

OkefenokeeYear 1943

Species	Relative Abundance	Sport Fishing		Commercial Fishing		Restocking		Number removed for Restocking
		Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	
Perch			39282					
Large Mouth Bass			2012					
Jack (Pickrel)			1178					
Mudfish		5127	2242	none				
Cat Fish			10969					
		5127	55683	none	none	none	none	none

REMARKS:

Fishermen were about equally divided between the
 Cornelia side & Fargo side - 2570 on Fargo side, 2557 Cornelia
 side. 25596 perch taken on Fargo side, 13686 on East side -
 457 bass for Fargo side 1555 on Cornelia side -
 Total all species, 35507 Fargo side, 20176 East Side

UNITED STATES DEPARTMENT OF THE INTERIOR
REGIONAL OFFICE
FISH AND WILDLIFE SERVICE
Atlanta, Ga.

J. H. Perkins

April 20, 1944

CIRCULAR LETTER TO ALL REFUGE MANAGERS REGION 4

Subject-----Narrative Report Period Jan. 1 to April 30, 1944

Narrative Report for the period (4 months) Jan. 1, 1944 to April 30, 1944 will soon be due.

This Narrative Report from the Refuges serves to supply needed material for the Annual Report of the Service. For that reason it should include the highlights of refuge activity for the year. The time is also appropriate to give careful consideration to the progress being made on each refuge toward the primary objectives. A carefully prepared Narrative Report will show up the results of your management.

At this time you should carefully review Sec. 7743 of your Field Manual to make sure that your report is prepared, and follows as nearly as possible, the prescribed procedure as applied to your refuge.

I am taking the liberty of quoting a Circular Letter on this subject recently issued by Mr. Maurek of Region 3. This letter contains advice that all refuge managers could follow to advantage. It is recommended that you give this letter very careful study before preparing your report.

James Silver

James Silver
Regional Director.

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service

OFFICE OF REGIONAL DIRECTOR
828 Plymouth Building
Minneapolis 2, Minnesota

No. 81

April 15, 1944

CIRCULAR LETTER FOR REFUGE MANAGERS:

Wildlife data called for in the Narrative Report outline (Sec. 7743 - Field Manual) serves as a yardstick of our success in refuge management, and it is largely on that basis that we must measure the results of efforts to manage wildlife populations and refuge lands. In addition, we are dependent to a large extent on the refuge narrative reports and NR forms for information required in answering Congressional inquiries, as well as those coming from various conservation agencies and private individuals. In all to many instances it has been necessary for us to refer to the field for additional information. In other cases, changes in personnel have made it impossible to obtain the desired data. Now that we are faced with further loss of field personnel, we need to make doubly sure that information requested in the refuge narrative reports is incorporated therein, and that the NR forms are completely filled out in accordance with instructions in Section 7743, Field Manual, Wildlife Refuges, and in some instances, explained in further detail on the reverse side of the report forms.

Too many of our refuge managers are prone to omit the breakdown of data called for on the NR forms. This is particularly true with respect to wildlife populations. The figures called for in the NR forms are expected to represent what in the best opinion of the refuge staff is the status of various wildlife species for the report period or for the calendar year in accordance with reporting instructions in the Manual. The figures supplied by the field serve as an index to the status of wildlife on that particular area. These are accepted on that basis and not on the assumption of absolute correctness. Numerically, expressions of abundance lend themselves to comparison, whereas general comments so often used by many of the refuge managers, such as "common" and "abundant" have no comparative value. We do not expect NR forms to be submitted from those refuges where permanent personnel are not assigned, nor do we expect to receive complete reports on NR forms where the secondary areas in a management district are visited at infrequent intervals. In the latter case where patrol trips are frequent enough, some worthwhile information is usually noted, and it should, of course, be entered on the appropriate NR forms.

If the NR forms are properly filled out and submitted with each narrative report as called for in the Wildlife Refuges Field Manual, much time can be saved by our respective offices, as well as by the refuge manager. In instances where the data has been omitted or is incorrect as a result of being carelessly assembled, it will be necessary to refer the matter back to the refuge manager for correction and explanation, otherwise concise, correct and readily available records cannot be kept in this office where such valuable reference material is so badly needed. Furthermore, the refuge managers should be impressed with the necessity of balance in the records on the various NR forms with similar records, for example, the fur records, submitted to other divisions in the Service. Such data must agree throughout and an accounting made for every item.

Burnie Laurek
Regional Director

R
Okefenokee

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

OFFICE OF REGIONAL DIRECTOR
GLENN BUILDING
ATLANTA, GEORGIA 3

REGION 4
—
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
FLORIDA
KENTUCKY
TENNESSEE
ALABAMA
MISSISSIPPI
ARKANSAS
LOUISIANA

February 7, 1944.

Mr. John M. Hopkins
Okefenokee National Wildlife Refuge
Waycross, Georgia

Dear Mr. Hopkins:

Estimates on the big game population as of December 31, 1943, which should have been submitted on Form NR-3 with the September-December narrative report, were not included with the report from the Okefenokee Refuge.

Please supply this information on form NR-3 at once in order that it may be used by the central office for inclusion in the Fish and Wildlife Service Annual Big Game Report.

Very truly yours,

Arthur F. Miller

Arthur F. Miller
Regional Refuge Supervisor



Refuge

OkajumaYear 1944

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population as of Dec. 31	(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter Losses	Number	Source		Percentage
White-Tailed Deer	150000 acres as previously reported	no chance to estimate					Estimated 40 killed by hunters with gun & trap. Night hunting when animals were outside of Refuge				None	1000	no est
Black Bear	" Also - Bears use so called "houses" in the marshes						Estimated 40 killed by cattle rangers. when animals get outside of Refuge				None	500	No Est

We can only estimate numbers by tracks, trails
to be found in different parts of the Refuge

INSTRUCTIONS

Form NR-3 - BIG GAME

- (1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) exclusive of fenced herds. 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 total number of young produced on refuge.
- (4) REMOVALS: Indicate total number in each category removed during the year.
- (5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.
- (6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.
- (7) TOTAL REFUGE POPULATION: Give the estimated population of each species on the refuge as of December 31.
- (8) SEX RATION: Indicate the percentage of males and females of each species as determined from field observations or through removals.

Refuge OkefenokeeMonths of Jan to Apr, 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.
Bobwhite Wild Turkey	nothing		nothing	nothing	nothing					nothing new to report. but we believe population has decreased different from last report

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.

MIGRATORY BIRDS

Refuge Key-Island Months of Jan to April, 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
Cormorant	3	3/6	Casual	200	3/15		4/25				200
Ankinga	4	4/9	3/15								no est. of value
Great Blue Heron	2 or 3	up	observed	on any trip	during	period	along canal				" " " "
Black Crowned Night Heron	3 or 4		"	"	"	"	"	"	"	"	" " " "
Yellow " "											
Wage. Ibis	2	4/7		no more	reported						
White "	40	4/7		no more	reported						
Wood Duck			Resident								no est
Mallard			Prior	5000							5000
Black Duck			to period	5000							1500 est
Ring Neck		"				.6	3/9				300 est
Wood Merganser		"				"	4/26				
Bluewinged Teal											
Mourning Dove			Resident								no est.
Woodcock			Prior to			2	4/29	1		no	est
Wilson's Snipe			4/1			1	4/29				no est

REMARKS: (Pertinent information not specifically requested) The first dates some birds recorded. This period would give information of no value because water was low and some areas where the birds might have been observed were inaccessible to boatmen. When most duck habitats could be rewatered the decrease in winter populations of ringnecks was quite apparent.

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.