

PRESQUILE

NARRATIVE REPORTS

JANUARY - DECEMBER, 1954

Branch of Wildlife Refuges

Narrative Report Routing Slip

Date 1/31, 1955

Mr. Salyer \_\_\_\_\_

Dr. Morley \_\_\_\_\_

Miss. Baum \_\_\_\_\_

Mr. DuMont \_\_\_\_\_

Section of Operations:

Mr. Ball \_\_\_\_\_

Mr. Regan \_\_\_\_\_

Section of Land Management:

Mr. Ackerknecht \_\_\_\_\_

Section of Habitat Improvement:

Mr. Griffith \_\_\_\_\_

Mr. Kubichek \_\_\_\_\_

Dr. Bearn WSR \_\_\_\_\_

Mr. Stiles \_\_\_\_\_

Stenographers:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Refuge PRESQUILE

Period SEPT. - DEC., 1954

PRESQUILE NATIONAL WILDLIFE REFUGE  
NARRATIVE REPORT FOR THE PERIOD  
SEPTEMBER 1 TO DECEMBER 31, 1954

PERSONNEL

John L. DeLime	Refuge Manager
James J. Parlow	Refuge Maintenance- Man

# INDEX

GENERAL	PAGE	1
Weather Conditions	PAGE	1
Water Conditions	PAGE	2
Fires	PAGE	2
WILDLIFE	PAGE	2
Migratory Birds	PAGE	2
Populations and Behaviour	PAGE	2
Food and Cover	PAGE	5
Botulism	PAGE	6
Lead Poisoning and other Diseases	PAGE	6
Upland Game Birds	PAGE	6
Populations and Behaviour	PAGE	6
Food and Cover	PAGE	6
Diseases	PAGE	6
Big Game Animals	PAGE	7
Population and Behaviour	PAGE	7
Food and Cover	PAGE	7
Diseases	PAGE	7
Fur Animals, Predators, Rodents, and other Mammals	PAGE	8
Predaceous Birds, including Crows, Ravens, and Magpies	PAGE	8
Fish	PAGE	9
REFUGE DEVELOPMENT MAINTENANCE	PAGE	9
Physical Development	PAGE	9
Plantings	PAGE	11
Aquatics and Marsh Plants	PAGE	11
Trees and Shrubs	PAGE	11
Upland Herbaceous Plants	PAGE	11
Cultivated Crops	PAGE	12
Collections	PAGE	12
Seed and other Propagules	PAGE	12
Specimens	PAGE	12
Receipts of Seed and Nursery Stock	PAGE	12
ECONOMIC USE OF REFUGE	PAGE	12
Grazing	PAGE	12
Haying	PAGE	13
Fur Harvest	PAGE	13
Timber Removal	PAGE	13
FIELD INVESTIGATION OR APPLIED RESEARCH	PAGE	13
Progress Report	PAGE	13
PUBLIC RELATIONS	PAGE	13
Recreational Uses	PAGE	13
Refuge Visitors	PAGE	14
Refuge Participation	PAGE	15
Hunting	PAGE	15
Fishing	PAGE	15
Violations	PAGE	15
OTHER ITEMS	PAGE	16
Items of Interest	PAGE	16
Photographs	PAGE	16



## PRESQUILE NATIONAL WILDLIFE REFUGE

## NARRATIVE REPORT FOR THE PERIOD

SEPTEMBER 1 to DECEMBER 31, 1954

## I. GENERAL

A. Weather Conditions

Varied weather, with rapid temperature changes from one extreme to another, kept this subject from being monotonous. According to the Richmond Weather Bureau one particular day might bring a high record for the date, while the next would see a new low established. A typical example occurred on December 30, when the mercury reached 69 degrees at 4.30 AM, breaking a record set in 1898. By midnight it had dropped below the freezing point.

Precipitation has been below normal during most of the period. Severe drought in September and early October damaged late maturing crops, pastures, and hindered soil preparation for winter grain crops. Then a series of heavy rains kept us out of the fields for several days.

The visit of Hurricane Hazel on October 15 brought winds up to 75 miles per hour. Some of the older buildings, scheduled for demolition suffered extensive damage to roofs and sheeting. Aside from minor roof and window damage buildings to be retained came through in good shape. Shallow rooted swamp trees were toppled by the dozens; lawns, lots and fields were littered with debris.

We regret that we were unable to obtain complete weather data for the period. It appears as if we will be forced to set-up our own station. By way of summary, however, the following figures may serve to point out some of the extremes experienced. While December temperatures were generally above normal, two record breaking cold snaps resulted in a 38 degree deficiency for the month, During the

calender year of 1954 an excess of 348 degrees was recorded. Rainfall deficiency since January 1, 1954, totaled 11.32 inches.

B. Water Conditions

Prolonged drought gradually lowered James River levels. Salt content of the water increased during September. Blue Crabs ran upstream as far as Richmond. Since the river has not had a good flushing out since last February, polution has gradually worsened.

River waters pushed inland by hurricane winds and aided by eight foot waves undermined banks in the "cut", depositing from 3 to four inches of silt at ferry landings. Attesting to violence of the storm, a sea-going tug turned over and sank, with the loss of four crewman, a few miles below Hopewell. This fresh siltation coupled with strong westerly winds has greatly hampered ferry operations. In December extremely low water conditions made it necessary to abandon ferry operations for a 48 hour period.

C. Fires

There is nothing to report under this heading.

## II. WILDLIFE

A. Migratory Birds

1. Populations and Behaviour

A cold front driving down from the north on October 7, brought in the first migrant Canada geese right on schedule. Original numbers and arrival date corresponded to the day with observations of 1953. First flock observed lacked just two hours of being a year. Population peak was not reached until December 15, some 15- 20 days later than 1953. At present our estimates indicate approximately 8,000 geese are present in the immediate vicinity. This represents a 50 to 60 percent increase over last years figures. Refuge observations and reports from hunters downriver indicate the increase may be largely attributed to a reshuffling of James River goose flocks.



Initial behaviour followed the previously recorded pattern of using an open water area of Curle's Neck marsh as a resting place with daily feeding flights into refuge or privately owned fields. Early refuge use was sporadic and generally light. Coincidental with opening of the waterfowl season numbers of geese feeding on the refuge doubled overnight and steadily increased until a peak of 5,600 birds was reached. Food needs of such a large flock depleted refuge supplies to a great extent and many birds were forced to seek other sources. During the latter part of December refuge feeding flocks have averaged approximately 3,000 birds.

As anticipated, a Secretarial Order closing surrounding river waters to gunning has enhanced efficiency of the refuge. Prior to this action a "firing line" encircled the island. At present river traffic in the old channels consists of a few commercial fishermen running their nets and an occasional sight-seer. Both ducks and geese have responded well to the extra protection. The channel between Curle's Neck and Presquile is visited daily. Forty-six hundred geese were observed in this area on one occasion with a daily average of possibly 2,000. At times, dependent on wind direction and velocity, the east channel and open water marsh areas receive extensive resting use.

Blue and Snow geese, in varying numbers, have been with us since November 15. On December 31, 36 Blues and 5 snows were observed for a seasonal peak and, a refuge record. Of this total 6 blues and one snow were juveniles.

We have little information on early migrant species of ducks. The Refuge Manager was on leave from September 10 to October 1 and was also absent from the refuge during most of October. Consequently, our first arrival dates may be later than usual.

As previously reported Blue winged teal flights usually by-pass this area. On October 3, 13 birds of this species comprised both our "first-seen" and peak populations. One Blue-Wing checked in a hunters bag on opening day furnished our "last-seen" record.

Duck population figures have been inconsistent with those of last year. Three Mallards were sighted on October 7. Peak populations of 1,900 Mallards and 900 Black Ducks were not reached until the last day of the year, some 33 days later than 1953. Two Pintail were observed - October 11 with a peak of a mere 40 birds on October 29. A

recurrence of last years heavy flight of this species during the latter part of November failed to materialize.

Wood Duck peaks topped off at approximately 425 birds in mid-December. No appreciable change has since been noted. These figures represent a 15 percent decline.

Other "first-seen" records include: Ruddy Duck, 3 - November 6; Green-Winged Teal, 1 - November 12; American Golden Eye - a refuge first, 5 - November 16; Gadwall, 1 - November 23; Shoveler, 2 - December 2; and Scaup, 3 - November 10. Above listed ducks are minority species. A count on December 31 revealed a total of 7 Shovelers, 10 Gadwall, 4 Green-Winged Teal, 2 Ruddies and 28 Scaup.

As previously reported Pintail, Scaup and Ruddy Duck use is confined principally to river channels and open marshes. Mallard, Black Duck, Wood Duck, Gadwall, Shovelers and Green-Winged Teal frequent both swamp and marsh. An increasing number of Black Duck have been observed feeding along river banks. A very few Mallards and Blacks fed in grain fields during early morning hours and on moonlight nights. Field feeding of ducks is, as yet, uncommon in the James River Basin.

In line with previous observations, there is a decided predominance of drakes in Mallards.

Coots have been conspicuous by their total absence.

Closure of waters surrounding Presquile and a new Virginia law prohibiting gunning within 500 yards of a licensed blind prompted a flurry of blind construction on all available stretches of the river below Hopewell. However, most of this work came to naught since hunters have consistently reported a scarcity of both ducks and geese. Kill ratio per hunter per hour is very low. These conditions have disheartened most gunners and only a few of the "die-hards" persist. Hunting pressure in nearby grain fields, Curle's Neck and Meadowville marshes has been very light although a fair kill ration has been reported from these areas.

A few American Mergansers use nearby river waters.

Sora Rail were present in fair numbers until late October. Wilsons Snipe arrived shortly thereafter and a few are still present.

Common, Royal, Caspian and Forresters Tern, numerous



during the preceeding period, disappeared early in November. Approximately 10 Great Blue Heron may be classed as resident. One American Egret is occasionally sighted.

Large numbers of Laughing Gulls, mixed with a few Herring and Ring-billed Gulls, trade constantly up and down river.

## 2. Food and Cover

Despite severe drought conditions, 22 acres of milo-maize was declared by local farmers to be far better than average. A late planting of 11 acres yielded only a fair crop. Some of the grain was "knocked down" with tractor and cultipacker to encourage goose use. During the first cold spell geese began feeding on this grain and continue to visit the field in colder weather. However, it appears that no more than 50 percent of the crop will be utilized by waterfowl due to deer depredation.

Buckwheat plantings received rain at a critical stage and produced an excellent yield. Deer damage had been slight prior to seed maturity. Then the animals invaded the 27 acre field and either ate or trampled approximately 80 percent of the crop. One afternoon in late September 51 deer were counted in the field. A large percentage of shattered seed regerminated covering practically the entire field with a green blanket. Unfortunately, frost nipped this second crop just as it started to bloom. Goose use of this field was very heavy during the first part of December.

Five acres of milo-maize overplanted to reseeding Crimson clover has furnished a small amount of green food. Drought and deer trampling killed a good portion of the tender plants. An experimental overplanting of ordinary crimson clover in part of the buckwheat field was entirely wiped out in the same manner.

Seventy-three acres of winter wheat have been heavily grazed. The 16 acre Ladino Clover - Orchard Grass mixture pasture, overplanted to Italian Rye Grass, has again been the recipient of heaviest grazing. The field is kept clipped to ground level at all times.

Eight acres of experimental browse plantings have provided additional food. A 65 acre wild pasture was used extensively in late December.

With duck populations building up later, foods in the

nature of sedges, smart weed, rushes, wild millet, partridge Pea and other plants have thus far sustained populations. Willow and Water Oak mast production was slightly below the bumper crop of last year. Observations indicate ducks are feeding upon black gum, gray dogwood and winter berries. It is feared that numbers of ducks now present will soon "eat out" both marsh and swamp.

### 3. Botulism

None noted on this refuge.

### 4. Lead Poisoning and Other Diseases

None Known.

## B. Upland Game Birds

### 1. Populations and Behaviour

Quail: Evidently this species either failed to reproduce or the mortality rate exceeded annual increment. Our single covey of 18 birds of last winter is now down to 10.

Turkey: Single birds, pairs and a group of 4 were observed around field edges up until the advent of cooler weather. Tracks and feeding sign indicate that the flock is just about holding steady.

Doves: Dove populations have undergone a steady increase as outside birds are attracted to standing milo. From 185 to 200 doves feed regularly in the field.

### 2. Food and Cover

Cover is more than adequate for all species. Weed, clover and grass seeds, along with grapes, smilax and winter berries should provide ample winter food for the single covey of quail. However there is some reason to believe that a scarcity of spring and early summer foods may well be a limiting factor in quail populations. Turkey should fare well on a variety of foods in the swamp. Some milo is being taken around field edges. No doubt doves will thin out considerably after supplies of milo have been exhausted.

### 3. Diseases

None known.

C. Big Game Animals

1. Populations and Behaviour

Daylight deer feeding has been confined almost exclusively to standing milo for the past two months. Consequently, it has been difficult to obtain accurate counts. However, we feel certain that there are more deer present than during the corresponding period last year. Our previous high count of 39 deer in all fields was made Christmas day, 1953. This year 51 animals were seen in one field at one time. At least 13 were in an adjoining pasture. Just how high total population figures may reach is strictly a guess proposition. It is virtually impossible to find a square foot of earth which does not contain hoof prints. An estimated 50 -60 percent of milo-maize and 80 percent of buckwheat production was eaten or ruined by deer. Overgrazing of Ladino Clover during periods of drought was a major factor in depletion of this favored food. Tracks in winter wheat fields point to the fact that deer are taking a goodly portion of the browse.

If refuge and area goose populations continue at present levels every acre of Presquille's agricultural land must be utilized to maximum production capacity if we are to feed one-half of the wintering flock. This is an impossibility if deer are to take half of the annual production at present herd levels.

Live-trapping, while not given a fair trial on the refuge due to the press of other duties, has never been successful in this area. A controlled hunt would reduce the herd to some extent. However, it is feared that annual increment plus those animals drifting in from surrounding areas would serve to build populations to present, or even higher levels, in a short time. The entire James River valley is overpopulated and, in most cases, undershot.

Possibly, as suggested in a previous report, a deer-proof fence may be the solution.

2. Food and Cover

Discussed under Populations and Behaviour.

3. Diseases

None known on this refuge.



D. Fur Animals, Predators, Rodents, and other Mammals

A steady upward trend in Muskrat populations has been previously reported. However, our observations and those of other marsh owners indicate that flood tides accompanying Hurricane Hazel destroyed most of the houses and drowned many "rats". Several dead Muskrats were found and increased vulture activity over marsh areas pointed to the presence of dead animals.

One Otter was observed on Deep Creek during the period. Tracks and other sign indicate that the population remains steady. Mink are still scarce but appear to show some increase.

Groundhog are fully as numerous as last reported. Their habit of keeping occupied by frequently digging new dens is conducive to an overpopulation of Skunk since the latter animals usually inhabit abandoned Groundhog dens. On a warm afternoon in early winter 14 Skunk were observed busily digging for insects and grubs in the Ladino Clover pasture. Presence of dens is a nuisance in tractor operations.

Cotton-tail Rabbit display a decided increase. In making a night trip from headquarters to Mr. Parlow's residence 12 rabbits were sighted.

No significant change has been noted in numbers of Raccoon. Gray Squirrels fall into the same category.

Opposum have been observed for the first time. Apparently they are very scarce on the island proper.

Four Red Fox make up the Refuge's total population.

E. Predaceous Birds, including Crows, Ravens, and Magpies

Barred Owls, Red-Shouldered and Red-Tailed Hawks are permanent residents. Two mature and one immature Bald Eagles visit the refuge daily. Marsh Hawks are common during winter months. At least one Short-Eared Owl is also wintering with us. Recently, an eerie scream proclaimed the presence of a Barn Owl. Fish Crows moved southward with the advent of colder weather while numbers of American Crows have remained constant. Both Turkey and Black Vultures are present at all times. Unless some irruptive increase should occur no concern is felt over possible damage by predaceous species.

F. Fish

A combination of low river levels, high water temperatures and pollution brought both commercial and sport fishing to a halt during September and October. During the past month commercial activity has picked up to some extent although these men report that catches of catfish are below normal for the period.

No "runs" of rockfish have occurred during the period. Apparently a high degree of pollution is responsible for the lack of activity.

An oddity of Hurricane Hazel occurred when hundreds of dead flounders, ranging in size from that of a quarter to three inches across, were noted floating in the "cut", two days after the big blow. Inquiry revealed that flounders have never been previously reported in this area.

III. REFUGE DEVELOPMENT MAINTENANCE

A. Physical Development

Farming and related activities consumed the major portion of our working hours during September and October. Eighty acres were disced twice; fertilizer procured, transported and applied.

Of the total acreage, 33 acres were sown to winter wheat and Ladino Clover after which the field was cultipacked. Since Ladino Clover seed was too small to be efficiently handled by the grass seeder attachment on the grain drill, it was necessary to use a Cyclone hand seeder. Seeding of this mixture was completed on October 23.

An additional 39 acres were sown to winter wheat with seeding dates ranging from October 14 to November 10. Sowing and cultipacking of the 16 experimental plots was completed October 11.

As is so often the case, Old Man Weather played a major role in farming operations. First, unseasonal hot weather and drought were instrumental in postponement of planting dates. Then a reversal of conditions, bringing



a temporary excess of rainfall put seeding schedules far behind and necessitated some rediscing.

Sixteen acres of a Ladino Clover - Orchard Grass mixture and 75 acres of wild pastures were clipped with the rotary mower during the period. Following mowing, the clover field was oversown with rye grass to compensate for bare spots resulting from over-grazing and drought.

Transporting of 21 steel pontoons, 2 steel tanks, 14 metal drums and an assortment of metal accessories from Camp Lejeune, North Carolina, was completed during October. Pontoons are scheduled to be incorporated into a new ferry barge. Drums and tanks will be used in building a floating boat dock. The operation required four separate trips to the marine base. Our sincere thanks are due to personnel of the Mattamuskeet Refuge for their whole-hearted cooperation in this endeavor. Mr. Swindell transported 4 loads and Mr. Hovell one. Equipment employed included the Diamond T from Presquile, a White powered low-boy and a Dodge stake truck from Mattamuskeet.

The old meat house located at headquarters, was razed during the period. Termite and dry-rot damage made salvage impractical. The operation, considered to be minor, turned into a major one when a thick concrete-brick slab was discovered under the building. Three extra man-days were expended breaking-up and hauling away the slab.

Painting of the interior of the main house began late in October. Although interrupted by other duties, at this writing the work is approximately half completed. Poor condition of existing paint, high ceilings and, the many panels, rails, ledges, mantels, moldings, doors and windows has made this a slow job. Three coats were applied to all woodwork. New plaster received 2 coats and old plaster three.

A contractor had completed laying linoleum on floors of the downstairs bathroom, hall and kitchen as the year ended.

Two concrete septic tanks were constructed and necessary drain fields laid by refuge personnel. One serves both bathrooms and the other takes care of the kitchen sink. Due to location of existing drain lines, which were in good condition, and difficulties involved



in draining all waste to the same tank, the decision to build a second tank was made. Previously all sewage from the main house had drained into an open pit in the garden.

The plumbing contractor finally finished this phase of the rehabilitation work when kitchen sink and hot-water heater were moved and installed permanently.

The old ferry came in for its usual share of expended time when a main supporting timber of the south landing stage broke, dropping counter weights into the mud and water. A local garageman, assisted by refuge personnel, replaced timbers and made necessary repairs. Pumping the barge out after every rain, clearing decks of ice and snow, minor repairs to the power unit, and other maintenance incidental to nursing the old craft along consumed many working hours.

Signs, designating those portions of the river closed to gunning, were posted around the entire island.

An electrical contractor wired the shop building and ran power into it from a nearby pole.

Regular patrol trips have been made during the waterfowl season.

The refuge manager visited Fort Eustis, Va., to inspect a surplus 18 foot boat and 10 horsepower Johnson motor. A later trip, in company with Mr. Parlow, was required to transport the equipment to Presquile.

Clean-up after the hurricane, office routine, ferry operation and the many day to day maintenance jobs round out the work program.

## B. Plantings

### 1. Aquatics and Marsh Plants

No plantings made.

### 2. Trees and Shrubs

No plantings made.

### - 3. Upland Herbaceous Plants.

No plantings made.

4. Cultivated Crops

Thirty-three acres of a winter wheat - Ladino Clover mixture, 39 acres of winter wheat, and 16 acres oversown to rye grass comprise major plantings. Alfalfa, rye, rye grass, oats, wheat, barley, crimson and Ladino clover were sown in the eight acre experimental area. Germination and subsequent growth of winter grains has been excellent. Rye grass has also done well. We are concerned, however, over the Ladino Clover planting. The field has been subjected to intensive browsing by geese and little clover is visible. Possibly spring may bring on new growth but, at present the stand does not appear worthy of retention.

C. Collections

1. Seed and other Propagules

No collections made.

2. Specimens

None collected.

D. Receipts of Seed and Nursery Stock

One hundred and forty pounds of certified Ladino Clover seed was procured from a local source. Five hundred pounds of rye grass was transferred from Kentucky Woodlands Refuge and 150 bushels of wheat from Reelfoot Refuge. Oats rye, rye grass, alfalfa, wheat, barley, crimson and Ladino clover seed for the experimental plots was furnished by the Virginia Commission of Game and Inland Fisheries.

IV. ECONOMIC USE OF REFUGE

A. Grazing

None.

B. Haying

None.

C. Fur Harvest

None.

D. Timber Removal

None.

E. Other Uses

None.

V. FIELD INVESTIGATION OR APPLIED RESEARCH

A. Progress Report

A Study of Utilization, Preference, and Nutritional Value of Winter-Green Agricultural Crops is again being conducted upon refuge lands by Mr. John Bryant, Technician, Virginia Commission of Game and Inland Fisheries. It had been hoped that increased food production on the refuge would enable the Project Leader to evaluate food preferences. However, with numbers of feeding geese showing a 50 percent increase, coupled with deer competition, it has been difficult to draw any definite conclusions. Mr. Bryant is very discouraged as to prospects of success.

VI. PUBLIC RELATIONS

A. Recreational Uses

As previously reported Presquile's recreational possibilities are limited and difficulties involved in traveling to and from the island tend to hold down numbers of possible visitors. In view of the uncertain ferry we



have been reluctant to encourage visitors.

The majority of refuge visitors consist of business contacts of some form or another. A few ornithologists and individuals casually interested in conservation complete the list.

B. Refuge Visitors

Refuge Visitors were as follows:

- 9/8/54 and numerous trips thereafter. Mr. John Bryant, Va. Game Commission. Goose browse study.
- 9/8/54 Mr. Richard Harriss, Richmond, Va. Informal visit.
- 10/16/54 Mr. R. B. Burrell, Bon Air, Va. Informal visit.
- 10/23/54 Mr. Edward Gorman, Va. Game Warden, Richmond, Va. Informal visit.
- 10/25/54 Messers. Swindell and Hovell, U. S. Fish and Wildlife Service, Swanquarter, N. C. Transporting Pontoons.
- 10/30/54 and 12/18/54 Mr. Robert Scott, Richmond, Va. Bird study.
- 11/8/54 Misses Eppes and Chambers, Hopewell, Va. Bird Study.
- 11/9/54 Messers. Clarke and Harding, Hopewell, Va. Informal visit.
- 11/10/54 Messers. King, Va. Game Commission, and Shuffler, U. S. Game Management Agent, Suffolk, Va. Patrol activities.
- 11/11/54 Mr. Westbrook, Va. Game Warden, Charles City, Va. Cooperation.
- 11/11/54 Mr. Robert Gordon, Hopewell News, Hopewell, Va. Newspaper article on waterfowl season.
- 11/12/54 Mr. James Betts, Hopewell News., Hopewell, Va. Publicity.
- 12/4/54 Mr. Neil J. Burney and Daughter, Hopewell, Va. Bird Study.

- 12/5/54 Mr. David Booth, U.S. Fish and Wildlife Service, Atlanta, Ga. Ferry construction.
- 12/9/54 Mr. Lawrence Givens, U. S. Fish and Wildlife Service, Atlanta, Ga. Inspection.
- 12/12/54 Messers. Bishop and Jones, Richmond, Va. Ferry construction.
- 12/14/54 Mr. Newman, Richmond Steel Co., Richmond, Va. Ferry construction.

C. Refuge Participation

While engaged in posting river waters closed to hunting, landowners affected by the order were contacted to explain reasons for the action and point out boundaries as designated.

Notice of the closing order was published in all local newspapers by sporting editors.

D. Hunting

Nothing to report.

E. Fishing

Nothing to report.

F. Violations

Due to a heavy concentration of hunters around the island in the past, it had been feared that enforcement of the closing order might present a problem. However, this has not been the case. The only known violation occurred when refuge personnel were absent from the island for a short time. Regular boat patrol trips have failed to disclose further signs of violations.

Two men were apprehended on opening day when they were observed using an outboard motor to run into a flock of Ruddy Duck, and to kill four birds. The incident occurred

some two miles above the refuge. Cases were referred to Game Management Agent Atkinson and are still pending.

## VII. OTHER ITEMS

### A. Items of Interest

Mrs. DeLime and Mr. Parlow went through an anxious two hours during Hurricane Hazel, when a tug pushing a barge laden with 600,000 gallons of gasoline was unable to make the bend at the west end of the "cut" ending up on a rock bar. Rising waters finally floated the barge free and crewmen were able to move it into quieter waters of the west channel.

### B. Photographs

Several representative photographs are submitted in the appendix.

Submitted by:

John L. DeLime  
John L. DeLime

Date: \_\_\_\_\_ Title Refuge Manager

Approved by: SW

Regional Refuge Supervisor

Jan. 21, 1955



3-1750  
Form NR-1  
(Rev. March 1953)

# WATERFOWL

REFUGE      Presquile

MONTHS OF Sept. 1 TO Dec. 31, 1954

[illegible]

Cont. NR-1  
(Rev. March 1953)

WATERFOWL  
(Continuation Sheet)

[illegible]

Swans:									
Whistling									
Trumpeter									
Geese:									
Canada	975	950	1500	3000	3900	5000	3000	3000	169,750
Cackling									
Brant									
White-fronted									
Snow			1	3	5	5	5	5	168
Blue		6	6	10	13	27	27	36	875
Other									
Ducks:									
Mallard	775	1050	1600	1075	540	900	1450	1900	69,905
Black	375	575	650	550	290	325	775	900	33,369
Gadwall			1		2	5	10	10	196
Baldpate									
Pintail	325	250	300	450	300	215	125	75	16,954
Green-winged teal		1			3	10	10	10	238
Blue-winged teal	5								301
Cinnamon teal									
Shoveler				2	5	5	10	10	224
Wood	300	325	325	325	325	375	425	425	25,305
Redhead									
Ring-necked									
Canvasback									
Scaup	3	7	10	20	15	30	30	30	1,015
Goldeneye		5							15
Bufflehead									
Ruddy	8	5	5	3	7	5	2	2	280
Other									
<p>Above report includes only waterfowl actually using refuge and surrounding waters at time of report. Area population much higher. Constant trading to and from refuge makes it difficult to estimate populations. Thus this report is average daily use.</p>									
Coot:									

(over)



	(5)	(6)	(7)
	<u>Total Days Use</u>	<u>Peak Number</u>	<u>Total Production</u>
Swans	:	:	:
Geese	170,793	5,600	:
Ducks	147,802	3,362	12
Coots	:	:	:

# SUMMARY

Principal feeding areas Ducks -swamp, marsh & river edges.  
Geese - cultivated fields and pastures.

Principal nesting areas Swamp

Reported by

*John L. DeLime*  
John L. DeLime, Refuge Manager

## INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.
- (2) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: Estimated number of young produced based on 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 should be omitted.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).



3-1751  
Form NR-1A  
(Nov. 1945)

MIGRATORY BIRDS  
(other than waterfowl)

Refuge Presquille Months of Sept. 1 to Dec. 31 195 4

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Great Blue Heron			21	9/7/54	10	Resident				21
American Egret			18	9/7/54	1	Resident				20
American Bittern	1	10/2/54	1		1	10/21/54				
II. <u>Shorebirds, Gulls and Terns:</u>										
Ring-billed Gull			Not residents of refuge proper.							
Herring Gulle			Not residents of refuge proper.							
Laughing Gull			Not residents of refuge proper. Hundred trade up and down river daily.							
Sora Rail			10	9/7/54	2	10/29/54				50
Wilsons Snipe	1	11/2/54	6	12/12/54	Still here					25

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons</u> :		185	12/31/54	resident	200
Mourning dove					
White-winged dove					
IV. <u>Predaceous Birds</u> :					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow		25	Resident		25
				Reported by <i>John L. DeLime</i>	

#### INSTRUCTIONS

John L. DeLime, Refuge Manager

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes)  
II. Shorebirds, Gulls and Terns (Charadriiformes)  
III. Doves and Pigeons (Columbiformes)  
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1752  
Form NR-2  
(April 1946)

# UPLAND GAME BIRDS

1613

Refuge Presquile

Months of Sept. 1 to Dec. 31, 1954

(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.
Bob-white Quail	200 acres, fields, field and swamp edges.	20	0	0	60% male- 40 % female				10	
Wild Turkey	1,200 acres, swamp, marsh and field edges.	95	0	0					12	



# 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.

Form NR-3  
(June 1945)

BIG GAME

Refuge Presquile

Calendar Year 1954

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population		(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter Loss	Number	Source	At period of Greatest use	As of Dec. 31	
White-tailed Deer	300 acres Agricultural land, 779 acres swamp, 250 acres marsh  * Caught in fence and died.	20	0	0	0	0	0	0	3*	0		115	110	

Remarks:

Reported by John L. P. Sini



MEMORANDUM

# 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: 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 of 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 at period of its greatest abundance and also as of Dec. 31.
- (8) SEX RATIO: Indicate the percentage of males and females of each species as determined from field observations or through removals.



DISEASE

Refuge Presquile Year 1954

Botulism

Period of outbreak None

Period of heaviest losses \_\_\_\_\_

Losses:

	Actual Count	Estimated
(a) Waterfowl	_____	_____
(b) Shorebirds	_____	_____
(c) Other	_____	_____

Number Hospitalized	No. Recovered	% Recovered
---------------------	---------------	-------------

(a) Waterfowl	_____	_____
(b) Shorebirds	_____	_____
(c) Other	_____	_____

Areas affected (location and approximate acreage) \_\_\_\_\_

Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.) \_\_\_\_\_

Condition of vegetation and invertebrate life \_\_\_\_\_

Remarks \_\_\_\_\_

Lead Poisoning or other Disease

Kind of disease None

Species affected \_\_\_\_\_

Number Affected Species	Actual Count	Estimated
_____	_____	_____
_____	_____	_____
_____	_____	_____

Number Recovered \_\_\_\_\_

Number lost \_\_\_\_\_

Source of infection \_\_\_\_\_

Water conditions \_\_\_\_\_

Food conditions \_\_\_\_\_

Remarks \_\_\_\_\_

3-1756  
Form NR-6  
(April 1946)

## FISH

Refuge \_\_\_\_\_ Presquile \_\_\_\_\_ Year 1955

[illegible]

REMARKS: There is no fishing permitted within boundaries of Presquile Refuge.

3-1757  
Form NR-7  
(April 1946)

PLANTINGS  
(Marsh - Aquatic - Upland)

Refuge.....PRESQUILLE.....Year 1954

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Plant- ing	Survival	Cause of Loss	Remarks
NO PLANTINGS MADE								

TOTAL ACREAGE PLANTED:

Marsh and aquatic.....  
Hedgerows, cover patches.....  
Food strips, food patches.....  
Forest plantings.....



3-1758  
Form NR-8  
(April 1946)

# CULTIVATED CROPS

Refuge Presquile Year 1954

Permittee (If farmed by refuge personnel, so indicate)	Permit No.	Unit or Loca- tion	Crops Grown	Avg. Yield per Acre	Permittee's Share		Government's Share or Return				Compensatory Services, or Cash Revenue
					Acres	Bu. Har- vested	Harvested		Unharvested		
							Acres	Bu.	Acres	Bu.	
Refuge Personnel		33 acres	milo-maize	Est. 40 bu.					33	1320	
Refuge Personnel		27 acres	buckwheat	Est. 22 bu.					27	594	

Summary of Crops Grown:	Crop	Acreage	Permittee's Share		Government's Share		Total Revenue	
			Acres	Bushels	Harvested Acres	Bu.	Unharvested Acres	Bu.
	milo-maize	33					33	1320
	buckwheat	27					27	594
Interior Duplicating Section, Wash.D.C.								

DIRECTIONS FOR PREPARING FORM NR-8  
CULTIVATED CROPS

Cultivated Crops Report Form NR-8 should be prepared on a calendar-year basis for all crops harvested or utilized during the calendar year and submitted with the December 31 refuge report.

Permittee - List each permittee separately. If lands of the refuge are farmed by refuge personnel or hired labor, this should be indicated in the Permittee column.

Permit No. - List the number of the Special Use Permit issued to the individual.

Use or location - The Unit No. or name specified in the Economic Use Plan should be listed in this column.

Crops Grown - A separate line of the form should be used for each crop grown by each permittee or by refuge personnel. This is important, since if each crop grown by each operator is not specifically enumerated, the report will be of no value for statistical purposes.

Average Yield per Acre - It is important that the average yield per acre of each crop grown by each operator should be shown.

Permittee's Share - Only the number of acres harvested or utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. It is requested that all crops harvested be reduced to bushels wherever possible, or, as in the case with the harvesting of seed such as that of sweet clover, alfalfa, bromegrass, etc., the total harvested crop in pounds may be shown. Timothy, alfalfa, or other hay harvested by the permittee should be shown on Form NR-10 and should not be shown in the Permittee's Share column.

Government's Share or Return - Harvested - Show the number of bushels harvested for the Government and the acreage from which this share is harvested, both for grain raised by refuge personnel and by permittees. Unharvested - show the exact number of acres of crops allowed to remain unharvested as food and cover for wildlife. An estimate of the number of bushels of grain that is available for the wildlife in such unharvested crops should be shown in the Bushels column.

Compensatory Services, or Cash Revenue - Show other services received by the Government in cooperative farming activities, the number of acres of food strips planted for wildlife, the amount of wildlife crops not otherwise reported that are planted by cooperators for the Service, or the cultivation of wildlife plantations. If the permit is on a fee basis, the total cash revenue received by the Service.



REFUGE GRAIN REPORTREFUGE PresquileMonths of Sept. 1 thru Dec. 31 1954

(1) VARIETY	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) On HAND END OF PERIOD	PROPOSED USE		
				TRANS- FERRED	SEEDED	FED	TOTAL		SEED	FEED	SURF
Ladino Clover	0	140 lbs.	140	0	140	0	140	0			
Rye-grass	0	500 lbs	500	0	500	0	500	0			
Wheat	0	150 bu.	150	0	150	0	150	0			

(8) Indicate shipping or collection point Ladino Clover procured locally. Wheat transferred from Reelfoot Refuge. Rye grass transferred from Ky. Woodlands Refuge.

(9) Grain is stored at \_\_\_\_\_

(10) Remarks \_\_\_\_\_



3-1759  
Form NR-9  
(April 1946)

COLLECTIONS AND RECEIPTS OF PLANTING STOCK  
(Seeds, rootstocks, trees, shrubs)

Refuge Presquile Year 195 4

Species	Collections				Receipts		Total Amounts on Hand	Amount Surplus
	Amount	Date or Period of Collection	Method	Unit Cost	Amount	Source		
		NONE						

Interior Duplicating Section,  
Washington 25, D.C. 84267

3-1760  
Form NR-10  
(April 1946)

# HAYING AND GRAZING

Refuge.....Presquile.....Year 19 54

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Harvested	Period of Use From - To	Rate	Total Income	Remarks
No haying or grazing permits have been issued.									

## Totals:

Acreage grazed..... Animal use months..... Total income Grazing.....  
 Acreage cut for hay..... Tons of hay cut..... Total income Haying.....

Permittee	Permit No.	Unit or Location	Acreage	No. of Units Expressed in B. F., ties, etc.	Rate of Charge	Total Income	Reservations and/or Diameter Limits	Species Cut
NO REMOVALS								

Total income.....

Method of slash disposal.....

Ties.....



PUBLIC USE - C. Y. 1954

Please supply figures or your best estimates for the following categories when applicable to your refuge.

- A. \_\_\_\_\_ National Wildlife Refuge
- B. Estimated total use of all types \_\_\_\_\_ visitor days.

1. Hunting use( for these refuges having public or regulated hunting.)

Estimate visitor days \_\_\_\_\_

2. Fishing use. Estimate visitor days \_\_\_\_\_

3. Miscellaneous use( lump such uses as picnicking, swimming, wildlife observation, birdwatching, as well as those on the area for business or official use, including economic uses such as farming or trapping.)

Estimate Visitors days 150

1/7/55

DATE

Signed

John L. Pedone  
Refuge Manager

APPENDIX



Second "crop" of buckwheat resulting from deer damage. Note stripped mature plants.



Results of initial milo-maize plantings with heavy seed heads.



APPENDIX



A large Osage-orange tree on headquarters lawn fell victim to Hurricane Hazel.



More of the Aftermath of Hurricane Hazel.



APPENDIX



Some good came from the "big blow". This building is scheduled for salvage.



The ferry hard aground on an extremely low tide. Note angle of deck from end to end.