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PRESQUILE NATIONAL WILDLIFE REFUGE NARRATIVE REPORT FOR THE PERIOD SEPTEMBER 1 TO DECEMBER 31, 1955

PERSONNEL

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James J. Parlaw

Refuge Maintenance-

Man

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PRESQUILE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT FOR THE PERIOD

SEPTEMBER 1 to DECEMBER 31, 1955

I. GENERAL

A. Weather Conditions

Weather, as usual, has been a favored topic of conversation during the period. In September temperatures were about normal while precipitation doubled seasonal averages, marking the third straight month of excessive rainfall. Hurricane "Ione" scored a near-miss on the 19th. as the tropical disturbance bogged-down approximately 110 miles southeast of the area. After wallowing around for several hours, with little forward movement, the storm turned abruptly eastward and passed out to sea just south of Norfolk. Winds of some 50 miles per hour were experienced at Presquile and 3.12 inches of rain fell. The refuge suffered no damage but agricultural crops, principally corn, along the James River were further damaged, after being hard-hit during August by visits of "Connie" and "Diane".

October temperatures and rainfall conformed to past averages. November, however, was a month of extremes. The first half was unseasonably warm with a record breaking high of 85 degrees reached on November 14. Then, on November 29 the mercury dropped to 14 degrees, breaking all records for the date. Precipitation was near normal.

December has been unusually cold and dry as rapidly succeeding masses of artic air were pushed across the state by high pressure systems. A total deficiency of 124 degrees was recorded for the month. Rainfall was sub-normal. Light snow fell on two occasions.

Maximum temperatures, minimum temperatures, precipitation and departures from normal, as furnished by the

United States Weather Bureau, are given below:

	Max. Temp.	Min. Temp.	Precipitation	Dep. from Nor.
September	90	49	6.51	3.12
October	84	35	2.86	.20
November	85	14	1.76	-2.00
December	74	15	.86	-4.70

B. Water Conditions

Luckily, excessive rainfall in September was confined to tidewater areas, easing threats of serious floods along the James such as were experienced during August when, heavy run-off from mountain streams resulted in a major flood.

Ferry travel was sharply curtailed during December as a result of the cold weather. Freezing over of upriver tributaries cut down normal stream flow. This condition coupled with strong westerly winds, which accompany each cold front, holding back incomming tides resulted in extremely low river levels. While not officially confirmed, experienced rivermen claim the river reached an all time low. To our knowledge at least two parties of duck hunters were stranded overnight on river bars and islands due to low water.

C. Fires

Nothing to report under this heading.

II. WILDLIFE

A. Migratory Birds

1. Populations and Behaviour

Warm weather appeared to have little influence upon early migratory waterfowl since 22 Canada Geese arrived September 22, 16 days earlier than "first seen" records of 1954. These birds soon moved on to be replaced by a flock of 13 on September 27. On October 9 a cold front brought in 210 geese. This figure corresponds favorably in both numbers and arrival dates of previous years. Area population jumped to 3,200 Canadas by November 1 and steadily climbed to a peak of 7,100 on December 20.

A slight drop has been noted during the last ten days of the year, probably due to the influence of moonlight nights.

Peak numbers last year were reported at approximately 8,000 geese. This years decrease in the immediate vicinity is not believed to be a reduction of overall James River valley populations since there appears to be a decided intermingling of flocks. Brandon, Weyenoke and Eppe's Island plantations report increased numbers of wintering birds. One area, several miles downstream, locally known as "the seven mile reach" has also been a favored spot for geese. We suspect reports of 10,000 geese in that neighborhood to be a bit too optimistic. However, it is known that a sizable flock is present.

The intermingling of flocks plus other changes in behaviour and flight patterns has made it difficult to arrive at accurate population estimates. Probably the principal reason for these changes is due to vast amounts of corn left in fields along the James. Some farmers estimate that forty to fifty percent of the total production was unharvested due to ravages of three hurricanes. We have good reason to believe these estimates to be fairly accurate, since a nearby estate hired men to hand pick corn after the mechanical picker had gone through the field. More corn was gathered in the "gleaning" operation than had been harvested by the picker. Naturally the presence of so much good exerted its influence upon goose feeding habits and movements. If a flock found one favored feeding field to be populated with hunters they merely moved over into one which, at the moment, was free of gunning pressure. The writer has witnessed the cleaning of eight or ten geese at nearby Curle's Neck and they were "hog fat".

Still another factor influencing movements has been increased use of surrounding river waters which were closed to gunning by Secretarial Order in 1954. All sections of the old river channel are used extensively for resting purposes, and to pick up gravel, with the exact location on any particular day being dependent upon wind direction and velocity. There is no doubt but that this action has greatly increased the effectiveness of the refuge. On December 29 some 5,150 geome were resting in the water between Curle's Neck and Presquile just after sunrise. The entire flock moved into refuge milo fields a short time later and fed there until noon when they returned to the river.

A single Snow Goose arrived November 7 and was still present at the close of the period. Five Blue Geese were observed on November 18 with their number building to 13 at this writing. A Whistling Swan, observed December 10 has not

been seen again.

Arrival dates of most ducks averaged five to fifteen days earlier than in 1954. Three Mallards were sighted on September 29, building to an estimated peak of 3,450 December 14. Black Ducks arrived September 27 and reached a maximum count of 1,050 on December 14. Wood Ducks also reached yearly peaks on, or about, this same date and Pintail a short time later. The figures on Mallard and Black Duck represent record "highs" for the refuge.

Other first seen records include "B lue-winged Teal, 3-September 19; Gadwall, 2 - October 31; Pintail, 3 - October 4; Baldpate, 4 - October 31; Shoveler, 3 - December 8; Scaup, 11 - October 29; Ruddy Duck, 1 - October 31; Green-winged Teal, 3 - November 25; Ring-necked Duck, 2 - October 31; Canvasback, 1 - November 25; Redhead, 2 - November 13 and Bufflehead, 6 - November 9. The latter four species of diving ducks had not been recorded previously in refuge waters and are not common to the area.

Mallards and Black Ducks finally succumbed to the lure of easy pickings in corn and milo fields. Until this year reports and observations of duck feild feeding were few and far between with all such activity confined to bright moonlight nights. Now, practically each afternoon heavy flights gather in grain fields. During rainy weather ducks may be seen feeding in milo or corn fields at all times of the day. On one occasion 4,550 birds were observed in refuge milo fields. Presque Isle, Eppes Island and Brandon also report heavy duck use of corn fields.

The trend to field feeding has apparently effected movement and populations. In the past first heavy flights soon "ateout" masshs and were forced to move on. Severe freezing of marsh and swamp areas usually resulted in a general exodus. This has not held true since populations of most species held up through December despite heaviest ice yet encountered by refuge personnel. Also, reduced feeding demands in marsh areas by Mallard and Blacks, have probably been responsible for the heaviest flight of diving ducks seen in this area for many years.

Duck populations have also reacted well toward the safety of closed waters. In fact goodly number have been observed feeding along shorelines opposite the island. Previously all activity had been confined to narrow margins around the island proper.

Coot, rather scarce in this vicinity, have been seen frequently, ene flock of 51 was observed several occasions.

Common Mergansers have been more numerous than in past years. A very few Hooded Mergansers are present.

Early hunting success in nearby waters was been very good and on the whole has held up better than last year. The advent of diving ducks has helped out considerably. One of the most presistent hunters bagged a limit of Redhead opening day and later stated that they were the first ones he had seen from his blind in ten years. Another limit of Canvasbacks was reported from Johnson's marsh at the mouth of the Appomettex. Ring-neck and Bufflehead have also appeared im bags with few hunters able to identify them.

Some grumbling about la ck of ducks has been heard lately and is believed to be the result of field feeding cutting down flock movements.

Due to inaccessibility of marshs our observation of Sora are limited. However, there seems little doubt but that flood tide during nesting and brooding seasons resulted in a sharp reduction of this species.

Wilson's Snipe appear to be present in number comparable to those previously reported. In recent weeks freezing conditions have moved most birds in to a warmer climate.

Arrival date of returning Laughing, Ring-billed and Herring Gulls were noticably behind schedule but finally built to peaks equal to those of last year. Laughing Gulls moved southward with the advent of cold weather. Build-up of terns, Royal, Common, Caspian and Forster's, was also late and populations never approached those of previous years.

Shorebird flights were confined to a few Spotted Sandpipers and an occasional Yellow-leg.

2. Food and Cover

Sixty-two acres of row crop and 16 acres of broadcast milo has been the principal food attraction for waterfowl; with an overabundance of rainfall in late summer yields were excellent. Use by both ducks and geesehas been heavy and constant since arrival of cold weather, at this writing an estimated 15% of the grain is left in the refuge field and at present rate of consumption it will soon be gone. However, little concern is felt over feeding propects of area flocks for the remainder of the winter. Hundreds of bushels of corn remain in nearby fields which have not been shot over. Closing of the gunning season will open additional fields to the birds.

Early arriving goese fed primarily in the 33 acresLadino clover field. A late mowing of this legume was, luckily, timed just right and the stand far exceeded all expectations. Birds continue to visit the field alt hough it is now browsed to ground level. Alternate freezing and thawing has held back regrowth.

Attesting to the abundant food supply 61 acres of winter wheat sown in September and Ocotber have not attracted a single goose. A three acre planting of rye grass has also been neglected. Eight acres of experimental plots and 14 acre wheat-rye grass planting east of headquarters has received light use on two or three days. At this time last year all fields were practically devoid of vegetation due to overbrowsing.

The overplanting of buckwheat and Browntop millet in row crop milo added materially to food production in thise field. Ten acres of Browntop millet was a total failure due to innundati on by flood tides and trampling by deer.

At time of the last report we were concerned over production of natural foods in marshs and openings of the swamp. Apparently hurricane tides in August were beneficial in place of damaging yiblds. It is believed early maturing wild millet and smartweed seeds were covered by sediment just enough to encourage a second crop. Some smartweed was nipped by frost but most of it matured. Wild millet stands and yields were better than usual. Partridge pea appeared to be in normal yield. Acorn production in the limited oak stand along Deep Creek was about normal.

3. Botulism

None noted on this refuge.

4 . Lead Poisoning and Other Diseases

None known.

B. Upland Game Birds

1. Populations and Behaviour

Status of quail on the island is apparently at a critical stage. The one pair which spent the summer months between headquarters and the ferry were observed flying to the mainland and no birds have been seen since.

Turkey in numbers from one to six birds have been observed regularly. A slight drop in total population is suspected since no young birds were seen during the entire summer.

Doves, on the increase at the time of last report, have continued in an upw ard trend as birds were attracted to milo fields. Populations topped off at approximately the same levels as last year.

2. Food and Cover

Cover is more than adequate for all species. The supply of natural foods should sustain the small turkey flock. Of late the birds have been supplementing their diet with milo taken along field edges. Milo and millet has been the principal food taken by doves.

3. Diseases

None known.

C. Big Game Animals

1. Populations and Behaviour

The deer herd remains at levels consistent with those of the previous report. Our high count for the period was 53 deer in the Ladino clover field. From 20 to 40 may be observed most any evening between sundown and dark. The fact that refuge grain and browse crops have not, as yet, been depleted this year is due to increased acreages and yields rather than to any reduction in deer demands for food. Total bushels consumed by the animals will reach previously estimated figures. Deer were also a definite factor in the "eat-out" of Ladino Clover.

Two factors show some promise of relief from deer pressure although we are not too optimistic. First, fewn production on the refuge was below usual standards. Secondly, several areas downriver which have been overpopulated report drastic reductions of herds. Hunting success has been far below par in some instances. On the negative side, Charles City County, bordering the refuge to the east, purportedly maintains the highest deer population per acre of any of the tidewater counties. It is but a short swim across the river. Deer are frequently observed swimming the east channel. Alas, the deer problem is still with us.

2. Food and Cover

Discussed under Populations and Behaviour.

3. Diseases

None known.

D. Fur Animals, Predators, Rodents and Other Mammals

"Connie", "Diane" and "Ione" are believed to have been responsible for further decreases in Muskrat populations. All house were covered at least three times and, no doubt, many young kits were drowned. House counts, and other sign, indicate populations are probably equal to those reported for the winter of 1954-55 but less than noted during the winter of 1953 - 54.

One Otter has been observed on two occasions.

Apparently a limited number is present at all times. There has been no significant change in numbers of mink. They are still scarce.

Groundhogs are fully as numerous as last reported although cold weather has restricted their movements. Skunk populations dropped-off somewhat last spring and have not recovered to their original levels.

Cotton-tail Rabbit apparently enjoyed a successful breeding season and are still on an upward trend.

The status of Raccoon, Gray Squirrel and Oppossum appears unchanged.

The island's population of Red Fox has grown to five, representing an increase of four animals in two years.

E. Predaceous Birds, including Crows, Ravens and Magpies

Barred Owls, Horned Owls, Red-shouldered and Red-tailed Hawks are permanent residents. Four Bald Eagles fall into the same classification although no nests are present. There has been a noticeable decrease in Marsh Hawk observations this winter. The Usual Short-eared Owl is wintering on the island. The population of American Crows remains constant. Fish Crows migrated southward during November. Turkey and Black Vultures are observed daily.

F. Fish

catches of catfish. Ice has hampered their activities on two occasions. One haul-seine operation was conducted in waters off the north shore of the refuge throughout November. Carp taken were shipped alive in tank trucks to "pay as you catch" fishing pond operators in North Carolina.

Sport fishing was practically non-existent in nearby waters. A dredging operation and the high degree of pollution is held responsible. No "runs" of Rockfish were reported, which also may explain the scarcity of anglers.

III. REFUGE DEVELOPMENT MAINTENANCE

A. Physical Development

Farming and related activities consumed the major portion of our working hours during September and October. Fall plowing had been largely completed at the close of the previous period with but 16 acres remaining to be broken. Heavy growths of Johnson and Bermuda grasses prevented plowing of eight acres of this total although three cuttings with a bush-and-bog disc served the same purpose.

Fifty-five acres were sown to winter wheat, three acres to rye grass and 22 acres to a wheat-rye grass mixture. Each field was disced and harrowed three times, fertilizer applied prior to seeding. Cultipacking after planting was the final step.

Eight acres of experimental goose browse plots were sown with the soil receiving the same preparation.

The 33 acre Ladino clover field was clipped with the rotary mower. Barn lots and wild pastures were gone over twice.

Following flood waters during August, the south ferry slip filled in with mud and water-soaked leaves. A 500 gallon per minute high pressure pump enabled us to remove a 14 inch layer of this deposit. The operation aided immeasurably in allowing ferry travel for longer periods of time during low water.

The 35 X 20 foot steel barge, scheduled to replace the old wooden ferry, was received in good condition after being towed to its destination from Savannah, Georgia. Many long hours have been expended discussing and planning installation of a power unit. At this writing the unit is completed and will be placed on the ferry within the next few days.

One-half mile of old fence was torn down and all wire removed. Approximately one-half of the posts were pulled and a large percentage of the bushes and saplings growing in the fence row were pulled and disposed of.

All slate shingles were removed from the concrete shop building, extensive repairs made to sheeting and eaves, and one-half of the building covered with aluminium, V-crimp roofing. Cold, windy weather has prevented us from completing the operation as sheduled.

A dredging operation, deepening the navigational channel, made it necessary to frequently check work progress to circumvent possibility of damage to ferry installations. Despite these precautions the underwater telephone line was cut necessitating replacing by the telephone company with assistance by refuge personnel.

With opening of the waterfowl season patrol activities were stepped up. Periodic patrols have been made during the remainder of the year.

Three buildings were razed and debris disposed of. A small amount of lumber was worthy of salvage. breaking-up concrete floors and foundations proved to be an arduous and time consuming job. This material, plus brick from two chimneys, was hauled to Quarters number 2 and dumped over the high bank in an effort to stop the "cave-in" which threatens to undermine the residence.

Four sections of a floating boat dock, built of wooden forms fitted over metal drums were completed. The installation will be put into service following complettion of a satisfactory anchoring devise.

Two coats of paint were applied to front and back porches of quarters number 1.

Forty-four pickup truck loads of a sand-gravel mixture were hauled and spread along the road leading from the ferry to quarters 2.

Office routine, ferry operation, procurement and the many minor 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

Fifty-five acres of wheat, three acres rye grass and 22 acres of a wheat - rye grass mixture were sown during September and October. All seed germinated well and subsequent growth has been excellent. The rye grass sown in the mixture was experimental since the seed was originally scheduled for overplanting of milo. A prolonged wet spell of weather in August and September resulted in a heavy growth of grass in these fields and the project was abandoned.

The goose browse experimental area, composed of eight one acre plots, was also seeded in October. As in the past wheat, alfalfa, crimson clover, Ladino clover, rye, oats, rye grass and barley are under study. Some type of aphid damaged part of the plots in the early stages of growth. Most of the plants recovered and growth is about average.

C. Collections

1. Seed and Other Propagules

No collections made.

2. Specimens

None collected.

D.D Receipts of Seed and Nursery Stock

None received.

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

The Virginia Commission of Game and Inland fisheries requested permission to continue the Study of Utilization, Preferences, and Nutritional Value of Winter-Green Agricultural Crops for Goose Food. Permission was granted and plots were sown. As before the Commission furnished seed and fertilizer. Refuge personnel prepared the soil and made plantings. As yet geese have rarely visited the plots. Consequently, Mr. Warren H. Taylor, who is conducting the experiment has not been able to arrive at any conclusions.

As previously reported results of experimental clearings on three sites in the tidal swamp have been encouraging. Smartweed and various sedges have appeared in all clearings. No wild millet has been noted and the introduction of this food plant might well be of some benefit.

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 discourage visitors. In view of the uncertain ferry we have been reluctant to encourage to encourage visiting.

Public use for the year amounts to some 92 visitor days.

B. Refuge Visitors

Refuge visitors were as follows:

- 9/1/55 and numerous trips thereafteer. Mr. Warren H. Taylor, Va. Game Commission. Goose Browse Study.
- 9/17/55 Mr. Richard Dittman, U. S. Fish and Wildlife Service, Atlanta, Ga. Inspection.
- 9/22/55 Messers. Hogwood and Martin, Richmond, Va. Information on hunting regulations.
- 10/23/55 Messers. Flagler and Gill, Richmond, Va. Informal visit.
- 11/9/55 Mr. Lawrence Givens, U. S. Fish and Wildlife Service, Atlanta, Ga. Inspection.
- 11/16/55 Mr. Darrel Shuffler, U. S. Fish and Wildlife Service, Suffelk, Va. Law enforcement.
- 11/16/55 Messers. Joe Martin and Harry King, Va. Game Commission. Cooperation law enforcement.
- 11/23/55 Mr. Bob Gordon, Petersburg, Va. Newspaper publicity.
- 11/26/55 Messers. Westbrook and Smith, Va. Game Commission, Richmond, Va. Cooperation law enforcement.
- 12/4/55 Mr. James Hendricks, Colonial Heights, Va. Informal visit.
- 12/8/55 Mr. Garland Foster, Prince George, Va. Va. Game Commission. Cooperation law enforcement.
- 12/11/55 Messers. Wilson and Tate and families, Chester, Va. Wildlife observation.
- 12/13/55 Mr. Ronnie Burrel, Bon Aire, Va. Informal visit.

C. Refuge Participation

Nothing to report.

D. Hunting

Nothing to report.

E. Fishing

Nothing to report.

F. Violations

Violation of the closing order was limited to the apprehension of three men found in the west channel shooting from an open boat, at mid-stream. These cases are still pending trial.

Three men were apprehended on opening day of the waterfowl season, shooting one-half hour after sundown in Johnson's marsh at the junction of the James and Appomattox Rivers. Another case was made the same day when one man was found in a floating blind wathout a duck stamp. All four men were later found guilty in a trial justice courts and paid minimum fines. The cases were first referred to Game Management Agent Atkinson.

Regular patrol trips have failed to disclose evidence of further violations.

VII. OTHER ITEMS

F. Items of Interest

Suzy Q, the whitetail fawn, rapidly became a close member of the refuge family providing many hours of enjoyment as it romped on headquarters lawn with our aggregation of dogs. It was indeed a sad day when the little lady was found dead late one afternoon. The incident was totally unexpected since the animal seemed to be in perfect health at the time. Apparently she had paniced from some unknown reason and ran into a brick foundation, breaking her neck. Burial was made in the old orchard, with appropriate ceremonies:

The old ferry scow has been rather tempermental throughout the period, seemingly realizing it is destined for the junkpile. Among others, its favorite trick was to suddenly stop in mid-channel. Invariably the tide would be ebbing with a tug and five heavily laden barges bearing down at, seemingly, a much greater speed than usual. Only those who have been aboard at this time can appreciate the helpless feeling of such a predicament. Fortunately, we have always been able to make emergency repairs and make the landing in time. As matters now stand, since the new ferry should be in operation within the next ten days, this problem should be solved. However,

we have no doubt but that some new one equally as serious will soon crop up.

B. Photographs

We sincerely regret that no photographs are available for this report. Some exposures were made but faulty film made them unsuitable for reproduction.

Acknowledgement: We wish to thank Mr. John Walther for his assistance in preparing this report.

		Submitted by:	
		John L. DeLime	
Date:	JAN 1 1 1956	Title: Reguge Manager	8
Approv	ed by: Naures Cass. Regional I	Refuge Supervisor	

3 -1750a

Cont. NR-1 (Rev. March 1953)

WATERFOWL (Continuation Sheet)

MONTHS OF September 1 TO December 31 . 19 55 Presquile REFUGE (2) Weeks of reporting period Estimated : Production :Broods:Estimated (1) waterfowl 15 : : 11 13 : 14 : Species days use : seen : total Swans: Whistling Trumpeter presentative Geese: Canada 378.525 Cackling Brant DESCRIPTION DOCUMENT White-fronted Snow Telegraph Law | 1 DEG 10 Blue Other Ducks: Mallard 194.147 Black 70.490 Gadwall Baldpate Pintail 9.254 Green-winged teal Blue-winged teal Cinnamon teal Shoveler Wood 39,330 Redhead Ring-necked Canvasback Scaup 1,792 Goldeneye Bufflehead Ruddy Other Coot: (OVET)

	(5) Total Days Use	(6): Peak Number:	Total	(7) Production		SUMMARY	
				10 -	- Paris Pari	Géese:	Agricultural fields, mars
Swans	paseg .	10	Jo.	9	Principal feeding areas		iver edges. Ducks: Marsh,
Geese	379,005	7,114	89	38	50 50 50 50	swamp, fields	river edges and agricuktu
Ducks	318,536	5,305	30	10 }	Principal nesting areas		1888
Coots	224	100	425	1 422	450 590 875	825	39,380
	eou caur			1 2 2	Reported by		
		5				DeLime,	Refuge Manager
(2)	Weeks of					700	
	Reporting Period:	Estimated as	erage	refuge popula	tions.	T2	56
1-1	Estimated Waterfow Days Use:	Average week	ly pop	ulations x nu	mber of days present for	each spe	cies.
(h)	Production:		mber of	8100		6100	
	11000001011	breeding are	as. Br	rood counts s	hould be made on two or m ving no basis in fact sho	ore area	
a Amir Signati Fight	Total Days Use:	breeding hat	as. Br	rood counts s	hould be made on two or m ving no basis in fact sho	ore area	as aggregating 10% of the
(5)	Ming	breeding hat A summary of	as. Broitat.	rood counts s Estimates ha recorded unde	hould be made on two or m ving no basis in fact sho	ore area	as aggregating 10% of the mitted.
(5)	Total Days Use:	breeding are breeding hab A summary of Maximum numb	data	rood counts s Estimates ha recorded unde	hould be made on two or m ving no basis in fact sho r (3). sent on refuge during any	ore area	as aggregating 10% of the mitted.

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

WATERFOWL

REFUGE Presqu	uile					MONTHS OF	Septembe	r l TO	December	, 19 55
:			Weeks		(2) e p o r t	ing p	eriod			
(1) : Species :			3		5		7			
Swans: Whistling Trumpeter Geese: Canada Cackling Brant White-fronted Snow Blue Other Ducks: Mallard Black Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveler Wood Redhead Ring-necked Canvasback	45	45	45	22 3 45	13 3 5	250 30 3 11	75 100 5 15	575 490 5 10	2675 1050 620 5 5 210	2540 1250 875 1 4 9 5
Scaup Goldeneye Bufflehead Ruddy Other							1	3	10	10
Int. Dup. Sec.,										6 B1 A

3-1751 Form NR-LA (Nov. 1945)

MIGRATORY BIRDS

Presquile

Refuge

(other than waterfowl)

Month of September 1 to December 31

19 55

(S) Total:				4344 3					ser ontonich		
(1)	' Estim		2)		3)		+)		(5)		(6)
Species	11306 11	First	Seen	Peak N	umbers	Last	Seen	J-CURICERION	Producti		Total
Q NY	The g	NT	ENDER OF	ne shed	res bis	sent in a	FIRTCES	Number	Total #		Estimated
Common Name		Number	Date	Number	Date	Number	Date	Colonies	Nests	Young	Number
I. Water and Marsh	Birds.							DX	edaceous	Passerific	LEGR)
Great Blue Heron	Direco.	100		11	10/21/5	5 Resider	RILGS	Felcomifo	rmes, Str	Lat formes	15
American Egret				33	10/31/3	1	12/2	(Columbia	OLUGA)		35
Little Blue Heron				3	10/1	ī	10/5	and Terns		OF CHARTS	3
Little Green Heron				2	10/1		10/5	LUB (CBA)	TIDLESS I	o Ciconi	3
American Bittern	and A	in appre	priate a	2	10/1	and large	11/16	DE STABE O	o those s	pacies or	Local
	liste	On Lory	orper	species o	TOTAL TR	g on reft	Re grans	g ppe repo	eting per	lod shoul	g ps
	A.0.U	order.	Avoid g	ineral te	rms as	seaguil	, "tern"	etc. In	addition	to the 1	irds
(1) Species:	Use t	s contec	C DRIDGE	is found	in the	LO.U. CE	scklist,	1931 Edit	ton, and	list gro	b tu
				1	MSTRUCT	TOMS '			14,0		The second
		- I was to a			- 4				- I -		- Day
					- 1			John L.	Delime, F	sfuge Mar	a gary
					4.1	ure.	boxrem p	1	0 - 1		
II Chambing C. 77		19-11-11									
II. Shorebirds, Gull Terns:	s and								*		
				585	12/17	7174 - 4	Residen	of river			585
Ring-billed Gull Herring Gull				16	12/17		Residen				20
Laughing Gull				330	10/31	2	12/2	01 11461			330
Royal Tern				5	10/4	1	10/31				10
Common Tern				115	10/8	2	11/11				115
Caspian Tern	1.1			45	10/8	1	11/14				50
Forster's Tern				27	10/2	1	10/31	20			30
Common Snipe		1	10/31	7	/-	Still					25
Sora Rail				3	10/1	1/	10/31				20
	T. S.	To me			- 1 - 1	K-1					1 4 1 100
White-winged dove	the Heal	((n) 0417)									130
- Nourming dove				300		Good pop	Bation	still pres	eat		24.3.8
II. Doves and Pigeons:								79-1-1	J		
		(5)-		7 75V		707	9 7 9	The state of the s	SI		(0)
		(9)-		197 -		The state of		-			
					1	(
						(over)				- Bi A

(1)	(2)	(3)		(4)	(5)	(6)
II. Doves and Pigeons: Mourning dove White-winged dove		200	God	od population sti	ill present	
V. Predaceous Birds: Golden eagle Duck hawk Horned owl Magpie Raven Crow	1 19/5	30	Res		of river	30
II. Shorebirds, Gulls and				Reported by_		
			- Francisco (de la		John L. DeLime, F	Refuge Manager

INSTRUCTIONS

(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

II. Shorebirds, Gulls and Terns Charadriiformes)

& Gruiiformes)

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.

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.

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

Presquile Refuge_

Months of September 1 to December 31 , 1955

(1) Species	(2) Density	r at b	(3) Young Produced	(4) Sex Ratio	R	(5) emova:	ls	(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd. Estimated Total	Percentage	Hunting	For Restocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Bob-white Quail	200 acres, fields & swamp edges.	40	end such such such such such such such such	ndo od se do ge gulivover ge egyd brahr eld bacc e dresarder n block see	m ou side side whe orte	den ewits ente toeu ugs i	n but l bns less ld bd ns an	ode 5 ow	
Wild Turkey	1150 acres, swamp, marsh and field edges,	115	nogu basa	produced, l	apoy	to m	admup Edadn	10	
	os etc. Include de	tnaepad	f families i	ully to will e,		ave 1		melos aldī oeda medos	
	the been droper edd	ga trovi	havener y	ogađao dose	nt v	edison	£a¢c	Indicate t	(S) REMOVALE:
	orb perded. This w of the during obeloc		gnira d ag int griday	dog the refu	u te	district that o	Eaded mobile	Relimeted include re	stator (a)
	. bedano pe		su no dalo Diose u no	nformina pop	God dres	begg Marie	tenda g tad	indicate a	estimen (r)
			544.0	ed bloods be	Tayo	e boy	TAIL B	do of eldet	e Only columns apple

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES:	Use correct	common	name.
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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 1955

	(1) Species	SEX	BATTO D	(2) ensit	thTodicat	(3) Young Produced	317	Re) vals		Los	5) ses	Intr	(6)	(7) Estimat Total Re Populat	fuge	(8) Sex Ratio
Co	ommon Ne	me	Acreae	e of	es,total Habitat	Number	Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter	Number	Source	At period of Greatest use	As of Dec.	
White	-tailed	YOU	land 78 swamp,	0 ac 250		d total	0	0	0	gunoi	O D D	o o	5*	0	uge. Muring the	115	105	
	(s)				* Cause	of death	nk	now	PASSES OF STREET	special cover as the control of the control of the covert and the	es o t nat es. o m ing boll sas	pee pee lon C uch ag ag abm		s in of not ypes obs ure in W show	Committed nu- cores in e- cores in e- cores in e- cores in e- should be- cure the g- cand, bott- ldlife Ma- iod used a-	mers. Dens as to be pre- sch cover ty except as detailed en- meral pictu- mised hardw segement Ser on actual d size of s	se four eignific ough to re. Exp	
	Form MR (1)	SPE				indicate		p-el	Mu	is de		bl		iled		e-talled de	er, It ed deer	E B

Remarks:

Reported by

Reported by

Form NR-3 - BIG GAME

swamp, spo agres

- (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.

Calendar Year

Form NR-5		DISEASE			
	Refuge	rresquile	Yea	ar <u>194</u>	
	Botulism		Lead Pois	soning or other Disc	ease
Period of outbreak	NONE		Kind of disease	NONE	
Period of heaviest los	sses		Species affected		
Losses: (a) Waterfowl (b) Shorebirds (c) Other Number Hospitalized (a) Waterfowl (b) Shorebirds	Actual Count No. Recovered	Estimated	Number Affected Species Number Recovered Number lost		
(c) Other Areas affected (locate	ion and approximat	te acresse)	Source of infection_ Water conditions		
Water conditions (ave	rage depth of wat		Food conditions		

Condition	of	vegetation	and	invertebrate	life
-----------	----	------------	-----	--------------	------

Remarks

Remarks

Refuge	Presquile	Year	1925
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		Sport Fishing		Commercia	l Fishing	Rest	ocking	Number re-
Species	Relative Abundance	Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	moved for Restocking
						1-1-15		
					TYTY'S IS			
	The second second							
					- 1 1 3 4 5			
								10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			EM THE STATE					
			STAR TO					
						Figure 18		
					2 70			
			Maria and Maria	Mily Some The				

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

3-1757 Form NR-7 (April 1946)

PLANTINGS (Marsh - Aquatic - Upland)

	Re	fuge	Presquile		Yea	ar 195 <u>5</u>		
Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature	Date of Plant-ing	Survival	Cause of Loss	Remarks
no plantings ma	DE							

TOTAL ACREAGE PLANTED:

Marsh and	aquatic
Hedgerows,	cover patches
Food strip	os, food patches
Forest pla	intings

3-1758 Form NR-8 (April 1946)

Films 2	66	Refuge_	Presquil	Le	8	Year	195_5		nt b		
Permittee (If farmed by refuge personnel, so indicate)	Permit No.	Unit or Loca- tion	Crops Grown	Avg. Yield per Acre	She	ttee's are Bu.Har- vested	Harve	sted	Unharv Acres		re or Return Compensatory Services, or Cash Revenue
Refuge Personnel	Led d b	Field 2	Milo	35	0	0	0	0	38	1230	0
Refuge Personnel	Land Land	Field 4	Milo	40	0	0	0	0	25	1000	0
Refuge Personnel	to a	Field 5	Milo	35	0	0	0	0	15	525	0
Refuge Personnel	OXO	Field 5	B.T.Millet	5	0	0	0	0	10	50	0
Refuge Personnel	betsev the n	Field 2 overplanting	B.T.Millet	ad p	0	0	0	0	18	72	0
Refuge Personnel	Tester do	Field 2 overplanting	Buckwheat	4 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0	0	0	0	18	72	0
Noe.	to the su	TO STATE OF THE BEAUTY	pa type	Ta of the	ph each	To said	tgran o		Leggoes adt tal	se erop	ba gebo

Summary of Crops Grown:	Crop	Acreage	Permittee's Share Acres Bushels	Harves		nt's Share Unharveste	Total Revenue
of a particular partic	1 2 2	TOTAL SECTION		Acres	Bu.	Acres Bu	\$
	milo	78	4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0	0	78 275	5
000000	Millet	28	28868	0	0	28 12	2
Interior Duplicating	Buckwheat	18		0	0	18 7	2
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.

<u>Crops Grown</u> - 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 <u>Bushels</u> 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 FARMING PROGRAM

1955

Total acres of land in share crops	0	
Total bushels of grain harvested (Permittee's share)	0	
Total bushels of grain harvested (Refuge share)	0	
Total bushels left in field for waterfowl	0	
Total acres of grazing lands	0	
Animal use months	0	
Grazing (cash receipts)	0	
Total acres of hay land	- 0	
Tons of hay cut	0	
Cash receipts for hay	0	
Refuge farming operations (acres)	208	*
Total bushels of grain harvested	0	
Total bushels food left for wildlife	2949	

Eighty-eight acres of grain crops and 120 acres browse crops. Browse crops include; 33 acres Ladino clover, 8 acres experimental plots, 3 acres rye-grass, 50 acres winter wheat, and 26 acres winter wheat-rye-grass mixture.

REFUGE GRAIN REPORT

(1)	(2) On Hand	(3) Received	(4)		GRAIN D	(5) ISPOSED OF		(6) On Hand	Propose	(7) d or Suitab	LE USE*
VARIETY*	BEGINNING OF PERIOD	During Period	TOTAL	Transferred	Seeded	Fed	Total	END OF PERIOD	Seed	Feed	Surplus
Wheat	150 bu.	0	150	0	142	4	146	4		4	
Rye-grass	700 lbs	0	700	0	650	0	650	50	50		
Ladine Clover	102 lbs	0	102	0	40	0	40	62	62		
	(3) Rep h (4) A to	anch type brid corn, lo, new er la not suffi her refuge ort all grantrest from tall of column dies a	of grain sep garnet whea a cowpeas, n e, as specifi i. Include of n received of food patch ans 2 and 5.	it grannri nrately an i red May ikado aoy o details a aly domes aring per	e, multiply d specifical wheat, dur beans, etc re necessan ic grains; od from al	y, as think y, as think um wheat Mere ti y in cons agastic an	cern, yellow spring when sting as con- dering trans d other seed.	dent corn, it, prose mille, wheat, an fer of seed will be liste fer, share c	ashels. quare dashe, combine a soybeans upplies to to MR-0.		
	itemer all rein shall be n in busing	gridh in h somidere 50 lb., 199	enhels. For equivalent		se of this el: Corn (soy beens	report the shelled) -60 lb., n	following a 55 lb., corn filet 60 lb.	(ear) —70 III	reights of , wheat-		

	(8)	Indicate shipping or collection points	IN POWCIL,) AT PTRE
	(9)	Grain is stored at Headquarters s	op building	
	(0)	William III Stories William III III III III III III III III III I		
(10)	Remarks		

^{*}See instructions on back.

REFUGE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lb., corn (ear)—70 lb., wheat—60 lb., barley—50 lb., rye—55 lb., oats—30 lb., soy beans—60 lb., millet—50 lb., cowpeas—60 lb., and mixed—50 lb. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

- (1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR-9.
- (3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.
- (4) A total of columns 2 and 3.
- (6) Column 4 less column 5.
- (7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.
- (8) Nearest railroad station for shipping and receiving.
- (9) Where stored on refuge: "Headquarters granary," etc.
- (10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

Form NR-9

COLL PIONS AND RECEIPTS OF PLANTING OCK (Seeds, rootstocks, trees, shrubs)

Refuge	Presquile		Year	1955
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		Collec	ctions		Rece	ipts		
Species	Amount	Date or Period or Collection	Method	Unit Cost	Amount	Source	Total Amounts on Hand	Amoun Surplu
NO COLLECTIO	NO MADE							
		7						
							-	
	-					Maria Santa		

Form NR-10

HAYING AND GRAZING

	Refug	eI	resquile			Year 1955			
Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Har- vested	Period of Use From - To	Rate	Total Income	Remarks
NO HAYING OR	GRAZING PERM	ITS HAVE BEEN	ISSUED.						
			4						

Totals:
Acreage grazed ____ Animal use months ____ Total income Grazing ____

Acreage cut for hay _____ Tons of hay cut _____ Total income Haying _____

TIMBER REMOVAL

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 acreag	e cut over		Total	income				

PUBLIC USE - F. Y. 1955

following categories when applicable to your refuge.
A. Presquile National Wildlife Refuge
B. Estimated total use of all types 92 visitor days.
 Hunting use (for those refuges having public or regulated hunting.)
Estimate visitor days
2. Fishing use Estimate visitors days
3. Misce, aneous use: (Lump such uses as pinicking, swimming, wildlife observations, birdwatching, as well as those on the area for business or official use, including economic uses such as farming or trapping.)
Estimate visitor days 92
1/7/56 Signed
John L. DeLime, Refuge Manager