

LACASSINE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

JANUARY, FEBRUARY, MARCH, APRIL 1967

U. S. DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

LAKE ARTHUR, LOUISIANA

LACASSINE NATIONAL WILDLIFE REFUGE
NARRATIVE REPORT
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LACASSINE NATIONAL WILDLIFE REFUGE
 Refuge Narrative Report
 January - April 1957

I GENERAL

A. Weather Conditions.

	Precipitation	Departure	Temperature	
			Max.	Min.
Jan.	1.18	-4.97	75	27
Feb.	3.62	-.85	80	34
Mar.	10.55	25.73	78	42
April	11.95	28.23	82	42
Total	27.30	38.14	Extremes	82 / 27

Though rainfall was quite deficient in January and slightly so in February the very heavy rains of March and April more than made up for it.

Temperatures were about normal for the period and there were no bad storms. Heavy thunder storms accounted for most of the rain but winds were not excessive. A tornado struck about 6 miles from headquarters but no damage was suffered on the refuge.

B. Water Conditions.

Despite the deficiency of rainfall during January and February pool levels remained at a satisfactory height from the ample precipitation in December. With the rains of March and April pool levels began rising and reached a maximum level of 4.14 feet at Spillway 1A. On that date extra wooden stop logs in all spillways were pulled out to permit drainage down to the 4 feet level.

Waters in the pool were clear and pretty, however the waters of the Mermanteau River, Lacassine Bayou and the Intracoastal Canal stayed very muddy and at a rather high level.

Pool levels, based on Mean Low Gulf, were as follows:

	1957		1956		1955	
	High	Low	High	Low	High	Low
Jan.	2.92	2.86	4.08	3.82	2.42	1.86
Feb.	3.10	2.88	4.35	4.00	3.14	2.32
March	3.86	2.92	3.96	3.72	3.72	2.76
April	4.14	3.52	3.70	3.58	3.35	3.10
Max. Dev.	1.28		.77		.44	

Mormanteau River levels at headquarters based on Mean Sea Level were as follows:

	High	Low	Fluctuation
Jan.	3.20	1.70	1.50
Feb.	2.35	1.90	.45
March	3.50	2.10	1.40
April	<u>3.90</u>	<u>2.60</u>	<u>1.30</u>
Extremes	3.90	1.70	2.20

C. Fires.

There were no fires on the refuge during the period.

II. WILDLIFE

A. Migratory Birds.

1. Population and Behavior.

a. Waterfowl

Ducks during the period mostly consisted of mallards, pintails, and widgeon. Towards the latter part of the period there was a big influx of shovellers and blue-winged teal.

Though the heaviest concentrations were within the pool, particularly in the north and west sections, they were also widely scattered and numerous in other sections of the refuge particularly south of the Intracastal and in the Big Burn area. Large numbers of pintails were observed in the shallowly flooded farm area.

Shovellers were particularly abundant along the edges of Lacassine Bayou.

A few fulvous tree ducks were observed in the area toward the close of the period.

Canada geese appeared to remain about constant and were most abundant in the vicinity of the farm area. Some were observed in the pool and in marshes outside the pool. Coarse sand was purchased and dumped on the farm for the geese but though they walked all over it there was no evidence that they took any of it. Reports were received that at times considerable numbers of geese were seen, presumably taking gravel, along the shore of Grand Lake.

White-fronted geese were also abundant and followed much the same pattern as the Canadas.

Snow and blue geese, though plentiful in the area were not abundant on the refuge. Those that used the refuge were confined to the farm. However, they were much more abundant in adjoining pastures and flooded rice stubble.

b. Other Waterbirds.

At the beginning of the period there were large numbers of coots in the area. These gradually became reduced in number but a surprising large number were found at the end of the period, as individuals or pairs. It is believed that they are nesting in the pool.

Large numbers of common and Florida gallinules were also found on the pool.

About April 1 the herons and egrets began moving into the rookery area on Willow Island.

About 75 roseate spoonbills, white-faced glossy ibis, white ibis, snowy and cattle egrets, little blue and Louisiana herons, black and yellow crowned night herons and anhingas all found nesting there.

The cypress trees at Blue Grove in the pool were occupied by the nests of anhingas, diaceous cormorants, great blue herons and american egrets.

c. Shorebirds.

Few shorebirds were noted except for rather large numbers of Wilson's snips seen on the shallow flooded farm area.

2. Food and Cover.

An abundance of food was available for all birds present. The impoundment was in wonderful condition with ample water to permit feeding. Brasenia was very abundant and there were ample supplies of pond weeds and other submerged aquatics.

The solid saw grass marsh south of the Intracoastal Canal is sufficiently broken up by old burns to permit feeding.

Despite the fact that the millet and rye grass on the farm area was all consumed early in the season, considerable numbers of geese fed and rested during this period. Presumably they fed on native grasses and weeds.

3. Betulism.

None noted.

4. Lead Poisoning and other Diseases.

None noted.

B. Upland Game Birds.

1. Population and Behavior.

Upland game birds are not abundant in this area. One covey of quail was frequently seen at headquarters and a fair number of doves were observed.

2. Food and Cover.

This is rather poor country for upland game. The levees, particularly along the Intracoastal Canal provides the only cover.

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

The animal causing the most concern in this area is the nutria. Nobody seems sure whether the nutria is a blessing or a curse.

On this refuge there are indications that it may be something of a blessing. There is good evidence that it feeds on alligator weed and also on bull whip and bull tongue. There is little evidence that it feeds on Brasenia and other aquatics.

It has saved the trapping industry in this part of the country.

On the debit side it does some borrowing, though apparently it enlarges the burrows of armadillos.

The value of the armadillo is also a controversial subject. There is some evidence that they may eat ants and in view of the present Argentine fire ant threat, they may be valuable.

D. Predaceous Birds.

There are very few predaceous birds in the area. Crows are few and hawks mostly left with the coming of spring.

E. Fish.

Fishing was opened in the pool on March 15. Generally results were rather poor, primarily because of bad weather. Towards the close of the period fishing picked up with some nice catches of bass reported.

III. REFUGE DEVELOPMENT MAINTENANCE

A. Physical Development.

1. Equipment.

Considerable work was done on maintenance of equipment this period. The new boat, FWS-124, was hauled out; minor hull repairs were made and the boat was cleaned and painted. A new rudder, stuffing box and shaft were installed.

The small airboat was hauled out, cleaned, repaired and painted. A replacement engine was installed as the old one was about worn out.

The new airboat had the steering system overhauled and the bilges screened to keep out trash.

The Ford stake body truck had an engine overhaul and all trucks were safety inspected.

The Hercules marine diesel engine was installed on the large drainage pump on the farm area and the pump was put in operation. Additional funds were provided and an order was issued for safety switches for this unit to permit unattended operation.

Several other items of equipment were worked on, including 3 mowers, spray rig, paint spray outfit etc. Several items of equipment were surveyed and the shop was straightened out, tools cleaned, sharpened and assigned storage places.

2. Buildings.

A considerable amount of time was spent in inspection of equipment and developments so plans could be made for rehabilitation in the near future.

A survey of the wiring system at headquarters was made by a licensed electrician and found to be very inadequate. Plans were made to bring the wiring up to date. R.E.A. was requested to check their lines and a larger transformer was installed.

The headquarters water system was tested by the Health Department and found to be pure. However, at a later date the well casing was found to have rusted through and this was being rectified at the end of the period. Safety valves were installed on all water heaters. Two hot water heaters had to be overhauled.

The septic tank and drainage lines were cleaned out and it was found that the tank was rusted out. A new septic tank was

purchased but not yet installed.

The porch of Quarters # 2 was repaired and painted and the inside of Quarters # 3 was painted, completing all major rehabilitation work to be done on buildings for this year.

Materials are on hand for the construction of the equipment shed at the farm but weather conditions and the press of other work has prevented the erection of this building.

3. Grounds.

A considerable amount of time was spent in raking mess, mowing and trimming lawns, and cleaning out brush along fence rows. An old pasture fence was taken down and the area mowed. Edging around buildings, fences, posts etc. were sprayed with GMU to cut down the amount of trimming to be done.

4. Pest Plant Control.

Little work has been done on pest plant control during this period. Mr. Ted Ball visited the refuge on April 11 to look over the situation and for possible aerial application of 2,4-D. Relatively small amounts of water hyacinths were found in scattered patches and no alligatorweed was noted. It was decided that there were insufficient pest plants to warrant aerial application.

The Hardie spray rig was installed in the airboat and an attempt was made to spray water hyacinths from it. One patch along the Bell City levee was sprayed and some spraying was done along the Intracoastal but it was found that this outfit was not suitable for spraying the scattered patches of hyacinth. It was intended that spraying be accomplished from pirogues and by wading but it either rained each day from then on or rain was forecast.

Despite the fact the use of marsh buggies has been outlawed on the Lacassine pool it is believed that the most successful spraying was done with this type of equipment. It is believed that a new marsh buggy should be acquired and put to use at pest plant control and other jobs on this refuge.

5. Levees and Spillways.

Levees and spillways appear to be in pretty fair condition. Low spots in the levees at the spillways, caused by fishermen dragging their boats over, were filled in by hand and rollerways were installed on those sites. This was a cooperative effort between the Jeff Davis Rod and Gun Club and the refuge. The Rod and Gun Club furnished wooden rollers salvaged from rice combines. Refuge personnel assembled and installed them, one at each of the spillways and one on the ring levee on the Bell City Ditch.

Several other small low spots and holes made by armadillos and nutria were filled. This levee along the Bell City Ditch is rather low, narrow and with no berm left. High waters have caused further erosion here. A new levee must be constructed here in the near future.

Bridges have been constructed on the two spillways on the east side of the pool and the materials have been assembled for the bridge over the Bell City spillway.

B. Plantings.

There were no plantings of any kind made during the period.

C. Collections.

There were no collections of any kind made.

D. Receipt of Seed and Nursery Stock.

There were no seeds or nursery stock received during this period.

IV ECONOMIC USE OF REFUGE

A. Grasing.

There are 4 permittees grazing 8 of the approved grazing units of the refuge. Of these, 1 permit will expire May 15. One new permit was issued during the period to Mr. Cleveland Broussard for Unit # 3 which includes about 50 acres of marsh and the 9 acres of rice land in farming unit # 3. This permit will be used in odd years when rice farming will not be conducted.

High waters, caused by heavy rainfall, decreased the acreage available for grazing and there was some voluntary reductions made in the numbers of animals on the units.

B. Farming.

There are no active farming permits issued at this time. Rice will not be raised on Farming Unit # 3 this year in accordance with approved plans.

C. Fur Harvest.

The fur harvest was not as successful as was anticipated primarily for lack of proficient trappers. It is very difficult to find trappers who know how to trap nutrias; are willing to work hard at it; and are honest. One permittee took almost as many pelts as all the others combined.

No notice of the sale of refuge pelts has been received for the past 3 seasons. Local prices were generally satisfactory. Nutria pelts opened the season at \$1.25 and closed at 2.45. Mink was very unstable opening at \$8.00 and closing the season at \$3.00. Otters brought from \$10 - 18.00. Raccoons brought \$1.10 each.

Below is a record of the take for the various units:

Unit	Permittee	Nutria	Mink	Otter	Muskrat	Coon	Total Income
1	Alcee O'Blanc*	110					66.75
2	Joe Daigle	1088	25	2		26	1013.45
3	Leonard Miller	881	8	1	1	6	607.00
4	Henry Guidry	3076	30	15	4	57	2835.30
5	John Trahan	662					443.50
6	Louis Trahan	736					518.80
		<u>6,850</u>	<u>63</u>	<u>18</u>	<u>5</u>	<u>89</u>	<u>5484.80</u>

* Quit December 14, 1958.

The fur divided as follows:

	Gov't	Permittees
Nutria	2,619	3,931
Mink	25	38
Otter	6	12 *
Muskrat	5	0
Raccoon	0	89

* 40% of sale price on 3 otters remitted in cash.

The trapping period was from December 1 through March 2. The season was extended by the state to March 15 but it was decided not to extend the season on the refuge because the nutrias were beginning to lose their fur.

D. Oil Development.

At the close of the period word has just been received that the operational plans for Frankfort Oil Company had been approved. No work, though, had been done except for the surveying of the road dike site.

V FIELD INVESTIGATIONS AND APPLIED RESEARCH

There is little to report under this heading. Dr. Warren Bourz visited the refuge on several occasions to check on previously established plots. Plans were made to initiate a study of soils and vegetation on that area south of the Intracoastal Waterway in connection with oil development in that area.

VI PUBLIC RELATIONS

A. Recreational Uses.

There was little recreational use made of the refuge except for sport fishing, which will be discussed later, and a few visitors who came to see the heronry on Willow Island.

B. Refuge Visitors.

Visitors from the Regional Office during the period included Mr. Lawrence Givens who with Dr. Warren Brown made an inspection on March 27 and 28. Mr. Ted Ball flew in April 11 for pest plant inspection and possible spraying operations.

Dr. George Lowery of the Natural History Museum at L. S. U. visited the refuge to see the heronry on April 6 and brought with him Mr. Herbert Stoddard and Dr. Robert Newman. He returned on April 10 with Mr. and Mrs. Aarnes of Tenafly, N. J.

On Feb. 21st Dr. Van T. Harris, Biologist, brought with him Dr. George Hamlett of the L. S. U. Medical School.

Mr. Blake L. Workman and Mr. E. A. Skarda, Frankfort Oil Company visited in connection with proposed oil development.

Mr. and Mrs. James K. Vardaman, Governor, Federal Reserve Board, were brought to the refuge by Judge A.W. Barbe of Lake Charles, March 23 on a sight-seeing visit.

Mr. William Belknap, L. S. U. student, visited the refuge on several occasions in connection with a study of the white-faced glossy ibis he is making for a master's thesis.

A number of other visitors, either to see the refuge, or on business, were received.

C. Refuge Participation.

A number of talks were given by the refuge manager on "The Anta-
arctic". These included the Kiwanis Club of Jennings, on January 9, the student body of the Klondyke School on January 18, Cub Scout Pack at the Isadore Newman School in New Orleans on March 15, the Lions Club of Lake Arthur, February 21, The Terrebonne Bird Club of Houma, Louisiana on April 26, and the Rotary Club of Jennings on April 30.

A talk was given to Jeff Davis Boy Scout Leaders Round Table at Welch on the Lacassine Refuge and a film, "The Sunfish" was shown on April 2.

Refuge personnel took part in meetings of the Lake Charles Red and Gun Club and the Jeff Davis Red and Gun Club in Jennings.

Refuge personnel also participated in Ground Observer Corps air alerts during the early part of the period. It was decided, however, to close down this station because of a lack of interest.

D. Hunting.

Hunting in the area of the refuge was rather poor during the latter part of the period. There was considerable disfavor shown towards the split season. There were plenty of birds available but they were not flying and decoyed poorly.

E. Fishing.

Fishing privileges in the Lacassine Pool are the importance from the standpoint of public relations in this area. Opening day, March 13, takes on the aspect of a holiday, not far in importance from opening day of the hunting season. Several firms running fishing contests have the beginning of these contests coincide with the opening of fishing at the Lacassine and Sabine Refuges. Fishermen come in from an area of 75 miles or more to fish in the pool.

In an effort to reflect the importance of the fishing here, four registration boxes were constructed and placed at the sites of the four roller-ways. Inside these boxes are registration sheets with columns for name and address and fishing success, broken down into Bass, Crappie, Sunfish and Rough Fish. There is, however, a big question as to what percentage of fishermen will take the trouble to register.

The roller-ways constructed across the dikes have occasioned a lot of favorable comment and are valuable from a public relations standpoint as well as reducing erosion of the dikes.

F. Violations.

There were no known violations occurring on the refuge during the period. There were, however some vandalism and thoughtless actions on the part of a few fishermen in the vicinity of the spillways.

VII OTHER ITEMS

Personnel

Jack E. Perkins, Refuge Manager
 Jasper O. Riley, Refuge Clerk
 V. W. Hough, Refuge Maintenance Man

Gabriel Hebert, Laborer Leaderman
Simonet Hargrave, Laborer Temporary

Submitted by Joseph E. Rubin
Refuge Manager

5/9/57
Date

Approved by Lawrence S. Givens
Regional Refuge Supervisor

MAY 14 1957
Date

Regional Director

Date

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

WATERFOWL

REFUGE Incassine

MONTHS OF January TO April, 19 57

(1) Species	(2) Weeks of reporting period									
	1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	2,000		3,000		3,500		3,500		3,500	
Cackling										
Brant										
White-fronted	15,000		10,000		3,000		3,000		3,000	
Snow	4,500		3,000		550		550		155	
Blue	45,000		30,000		8,500		8,500		13,500	
Other										
Ducks:										
Mallard	300,000		300,000		250,000		20,000		20,000	
Black										
Gadwall	5,000		3,000							
Baldpate	20,000		10,000		1,000		1,000		1,000	
Pintail	50,000		5,000		3,000		2,000		2,000	
Green-winged teal	10,000		5,000		3,000		1,000		1,000	
Blue-winged teal										
Cinnamon teal										
Shoveler	10,000		15,000		10,000		10,000		10,000	
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy										
Other										
Fulvous Tree Duck										
Coot:	5,000		500		5,000		5,000		5,000	

3 -1750a
 Cont. NR-1
 (Rev. March 1953)

WATERFOWL
 (Continuation Sheet)

EFUGE LaCassine

MONTHS OF January TO April, 19 57

(1) Species	(2) Weeks of reporting period								(3) Estimated	(4) Production	
	11	12	13	14	15	16	17	18	waterfowl days use	Broods: seen	Estimated total
wans:											
Whistling Trumpeter	3/5-3/7	3/12-13	3/19-20	3/26-31	4/1-7	4/13-14	4/20-7				
ees:											
Canada	1,500		500				12		231,304		
Cackling											
Brant											
White-fronted	1,500		1,000						408,000		
Snow	700		500						115,000		
Blue	7,000		5,000						1,340,000		
Other											
ucks:											
Mallard	20,000		2,000						6,320,000		
Black											
Gadwall									77,000		
Baldpate	500								220,000		
Pintail	1,000		500						550,000		
Green-winged teal									194,000		
Blue-winged teal	1,000		2,000		200		100		20,200		
Cinnamon teal											
Shoveler	5,000		2,000		5				765,000		
Wood											
Redhead											
Ring-necked											
Canvasback											
Scaup											
Goldeneye											
Bufflehead											
Ruddy											
Other											
Fulvous Tree Duck				10			6		200		
oot:	5,000		1,000	500	500		20		407,400		

(over)

	(5)	(6)	(7)
	Total Days Use	Peak Number	Total Production
Swans			
Geese	2,022,274	66,500	
Ducks	8,506,400	400,000	
Coots	407,400	5,000	

SUMMARY

Principal feeding areas Expendment in North West Corner.

Principal nesting areas _____

Reported by

Jack E. Perkins
Jack E. Perkins, 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 Lacassine Months of January to April 1957

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
<u>Olivaceous Cormorant</u>										
<u>Ashinga</u>										
<u>Great Blue Heron</u>										
<u>Common egret</u>										
<u>Louisiana heron</u>										
<u>Snowy egret</u>										
<u>Little Blue heron</u>										
<u>Green heron</u>										
<u>Black-crowned night heron</u>										
<u>Yellow-crowned night heron</u>										
<u>American bittern</u>										
<u>Wood ibis</u>										
<u>White-faced ibis</u>										
<u>Rosate spoonbill</u>										
<u>Purple Gallinule</u>										
<u>Common gallinule</u>										
II. <u>Shorebirds, Gulls and</u>										
<u>Terns:</u>										

These birds common to a abundant and nesting on refuge.

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove	Resident species - common				
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow					
					Reported by <i>J. E. Perkins</i> J. E. Perkins

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 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.

Refuge LawrenceMonths of January to April, 19487

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
						Hunting	For Re- stocking	For Research		
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage				Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Bobwhite									178	

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

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

Refuge LawrenceApril 30, 194 47

(1) Species Common Name	(2) Density		(3) Removals					(4) Disposition of Fur						(5) Total Popula- tion	
	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control	For Re- stocking	For Research	Share Trapping			Total Refuge Furs Shipped	Refuge Income	Furs Donated		Furs Destroyed
								Permit Number	Trappers' Share	Refuge Share					
Skunk	21,325 A			6,000				1,000	1,000	1,000	1,000				20,000
Skunk	.			20				1,000	10	10	20				200
Otter	.			10				1,000	10	10	20	6.00	2.00		200
Muskrat	.			10				1,000	1	1	20				100
Raccoon	15,000			20				1,000	20	20	20				200
Armadillo	2,000							1,000	1	1	20				1,000
Skunk	2,000							1,000	1	1	20				1,000
Opossum	2,000							1,000	1	1	20				200

REMARKS: • These two otter pelts sold locally and 60% sale price (\$6.00) remitted to Regional Office.
 •• This one otter pelt sold locally and 60% sale price (\$6.00) remitted to Regional Office.

INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i.e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

- (1) SPECIES: Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan. "List of North American Recent Mammals" by G. S. Miller, Jr., a very good reference, is now out of print, although a revision is scheduled for publication in the near future.)
 - (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, bottom land 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) REMOVALS: Indicate the total number under each category removed since April 30 of the previous year. Also show any removals not falling under heading listed.
 - (4) DISPOSITION OF FUR: On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market and the total income to the refuge by species, including share-trapped furs and furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimeness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.
 - (5) TOTAL POPULATION: Estimated total population of each species reported on as of April 30.
- REMARKS: Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

REFUGE GRAIN REPORT

Refuge Lacassine

Months of January through April, 1957

(1) VARIETY*	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) ON HAND END OF PERIOD	(7) PROPOSED OR SUITABLE USE*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Corn	55		55			10	10	45			45
Rice, Smith	14 bbl.		14 bbl.			4 bbl.	4 bbl.	10 bbl.			10 bbl.
Eye grass	1500 f		1500 f					1500 f	1500 f		
Soybeans	30		30					30			30

(8) Indicate shipping or collection points Lake Arthur, Louisiana

(9) Grain is stored at Refuge Headquarters

(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.

LACASSINE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

MAY, JUNE, JULY, AUGUST, 1957

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

LAKE ARTHUR, LOUISIANA

LACASSINE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

MAY, JUNE, JULY, AUGUST, 1957

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* * * * *

LACASSINE NATIONAL WILDLIFE REFUGE
 Refuge Narrative Report
 May - August 1957

I GENERAL

A. Weather Conditions.

	Precipitation	Departure	Temperature	
			Max.	Min.
May	1.45	-4.44	88	49
June	14.80	10.14	91	58
July	3.12	-3.39	95	73
August	3.98	-2.80	95	68
Total	23.35	- .49	Extremes	95 49

As shown in the above table all months of the period were deficient in rainfall except June. June was quite wet even discounting the 6.60 inches which fell during and after hurricane "Audrey". Only 8 days in the month were without some rainfall, varying from a trace to a heavy down pour.

Temperatures were slightly below those of last year.

The most noteworthy weather feature of the period was hurricane "Audrey" which roared in over the coast on June 27th. It was estimated that winds reached a peak of 125 M.P.H. at headquarters. Water levels were quite high and wave action was violent. A total of 6.60 inches of rainfall was recorded at headquarters but how accurate this might be is anybody's guess. One of the rain gauges was partially blown over. A great deal of spray blew over the headquarters site further complicating the picture.

Though the center of the storm passed over Cameron and extreme damage was wrought there, most of the damage was from water. Judging from the amount of wind damage, the strongest wind seem to have passed through the refuge, Lake Arthur and Jennings.

Brown's Island and the Intracoastal Canal levee were the first high spots north of the Gulf with the result that much of the debris ended up here. After the storm the lower part of the refuge was a picture of utter desolation. Several survivors and a number of bodies of victims were recovered on the refuge. Thousands of dead cattle and hundreds of live ones were scattered all over the south portion of the refuge. Every imaginable kind of wreckage from one complete, slightly damaged house, to pieces of buildings, furniture,

tanks, farm equipment - almost anything, littered the area. The stench was horrible.

Another hurricane "Bertha" struck on August 9th. This, however, was a weak one, and no damage was suffered.

B. Water Conditions.

Prior to June 27th water conditions were excellent. River levels remained relatively high, holding water in the marshes. There was sufficient rainfall to maintain pool levels near the desired 4 foot mark.

With the arrival of "Audrey", however, these conditions were upset. The river gauge at headquarters, maintained by the U. S. Engineers washed out early in the storm. Readings from then until it was reestablished were from a gauge at Superior's landing.

Levels reached a peak of about 6.10 during the storm. This level dropped very rapidly as soon as the wind dropped. However, within the next couple of days it again rose to 6.10.

Early in the storm winds drove the waters from Grand Lake, Lake Misere and other associated water bodies up into the river, Lacassine Bayou, and the canals. When the storm wave broke over the ridges to the south they filled the lakes pushed dry by earlier winds. The head of fresh water to the north kept the salt waters from coming beyond the lakes. Though there was salt spray in the air during the storm there is no evidence of salt water coming north of the lakes. Lake Misere and the lower half of Grand Lake were quite salty. The Intracoastal Canal, Mermanteau River, Lacassine Bayou, etc. remained fresh.

The amount of debris in the water, both plant and animal made a sewer out of all the waterways. What plants were not broken off by winds and waves were killed by flooding of these putrid waters. Levels fell off very slowly.

Fortunately conditions inside the pool remained good. Though waters crossed the spillways and across the dikes in many places, no salt and very little debris entered. Vegetation inside the pool was unharmed except by mechanical action of the wind.

Pool levels during the period, based on Mean Sea Level, were as follows:

	1957		1956		1955	
	High	Low	High	Low	High	Low
May	4.22	3.66	3.48	3.18	3.14	2.96
June	4.80	3.70	3.28	2.98	3.14	2.74
July	4.80	4.10	2.98	2.68	3.54	3.20

	1957		1956		1955	
	High	Low	High	Low	High	Low
August	<u>4.08</u>	<u>3.86</u>	<u>2.78</u>	<u>2.54</u>	<u>3.88</u>	<u>3.44</u>
	1.14		.94		1.14	

Levels , based on Mean Low Gulf, of the Mermanteau River, as recorded on the guage at headquarters were as follows:

	High	Low	Fluctuation
May	4.00	2.40	1.60
June	6.10	2.40	3.70
July	5.10	3.30	1.80
August	3.20	2.10	1.10
Extremes	6.10	2.10	4.00

C. Fires.

There was one fire on the refuge. A fire on the marsh south of the Intracoastal was accidentally set by a marsh buggy searching for toads washed in there. Much debris was burned.

II WILDLIFE

A. Migratory Birds.

1. Population and Behavior.

a. Waterfowl.

There were relatively few waterfowl on the refuge during this period. One small group of Canada Geese numbering 16 was observed over the pool during the summer and again at the close of the period. It is assumed that these were probably young birds or cripples.

A few blue winged teal were noted towards the close of the period. A few mottled ducks and a few fulvous tree ducks were noted all through the period. After hurricane "Audrey" a flock of 600 - 1000 mottled ducks were observed in the flooded farm area.

b. Other Waterbirds.

Both the purple and common gallinules were quite common as nesting birds in the pool. Though there are no previous records of American coots nesting in Louisiana it was definitely established that these birds did nest in small numbers this season in the pool.

The rookery on Willow Island and adjoining marshland

to the west were heavily populated. About 65 pairs of roseate spoonbills, countless numbers of white-faced glossy ibis, white ibis, Louisiana and little blue herons, american and snowy egrets, black-crowned and yellow-crowned night herons and anhingas nested here. Also nesting again were the cattle egrets.

In the two cypress groves in the pool, Blue grove and Black grove were numerous nest of anhingas, olivaceous cormorants, great blue herons and American egrets.

One interesting observation which Bill Belknap, a student from L. S. U., who was making a study of the glossy ibis, made was of predation by night herons on young egrets. He reports seeing several night herons kill and swallow egret nestlings.

c. Shorebirds.

Relatively few shorebirds were noted this period. The black-neck stilt was most numerous, killdeer were common and a few of the smaller sand pipers were noted toward the end of the period.

2. Food and Cover.

Until the storm prospects for food and cover looked very good. The pool is in excellent condition, even after the storm, with vast quantities of Brasenia available. Pondweeds, bladderwort and some celery are available. The pool has never been in better shape.

Outside the pool, however, there is nothing. The putrid flood waters drowned out everything except bull tongue and bull whip. The vast sawgrass marsh south of the Intracoastal was beat down by the wind and then flooded out and covered with debris.

In this area only the refuge pool and the ricefields will furnish food for waterfowl this season.

3. Botulism.

None.

4. Lead Poisoning and Other Diseases.

None.

B. Upland Game Birds.

There is little to report under this heading. Though doves are rather plentiful in the area there is relatively little habitat for them on the refuge. The only quail observed were at headquarters.

C. Big Game Animals.

There is very little to report under this heading. There have been persistent reports of deer being seen on Brown's Island and Dr. Bourn reported seeing one there in early August.

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

Nutrias appear to still be on the increase in this area. They were quite abundant in the pool area during the spring, especially along the inside of the Intracoastal levee. Nests were found in all parts of the pool.

Storm "Audrey" washed a great number of these animals out of the marshes to the south. A few were drowned but a large number ended up along the levees. What the final effect of the storm will be on this population is now a big question.

Many reports have been received of damage to rice crops by nutria. Very little damage to levees by nutrias burrowing is reported.

Armadillos are generally despised by rice farmers for their burrowing habits and their destruction of levees.

E. Predaceous Birds.

Predaceous birds are hardly a problem here. Other than the above mentioned predatory habits of the night herons only the boat-tailed grackles present a problem. The boat-tail is a rather serious predator on the eggs of other birds.

F. Fish.

There was a rather large kill-off of fish in the river and other waters following the storm. The amount of decaying matter in the water quickly used up the available oxygen with the resulting fish mortality. This, however, did not take place within the pool.

III. REFUGE DEVELOPMENT MAINTENANCE

A. Physical Development.

1. Equipment.

During this period considerable work has been done on

equipment. Both boats were sunk and pretty well beat up during hurricane "Audrey". It was necessary to completely dismantle both engines to clean them out while they were dismantled new rings and bearings were installed and valves ground. Complete new sets of instruments were necessary. Considerable work was done on the hull of the Whistler and that boat was put back into operation.

The new boat was taken to a boat builder for repairs as the whole cab was torn off, windshield and frame smashed, deck warped up and the bow and stern damaged. At the end of the period these hull repairs were almost complete.

The MM farm tractor was cleaned up, painted and tuned up preparatory to farm operations.

A series of safety switches were installed on the pump unit on the farm to provide for unattended operation.

Three trucks were repaired and put into fair operating condition during the period.

The marshland ditcher was brought in, tuned up, and loaded for shipment to Reelfoot.

2. Buildings.

The buildings at the refuge came through the storm remarkably well. The residences were undamaged except for a few shingles on Quarters # 2 and several screen panels blown out. The small boat shelter suffered the worst damage having weather boarding knocked off by the water and shingles removed by the wind. Similar damage was done to the boat house on a smaller scale. Out buildings had some shingles removed.

Both airboat sheds were damaged but not seriously.

An equipment shed was constructed during the period. In fact, bracings were being installed the day prior to the storm. This building came through the storm undamaged attesting to it's good construction.

3. Grounds.

The grounds at headquarters presented a sad sight after the storm. Trees were broken and torn, leaves and moss blown off. The ground was covered with broken limbs, marsh grass, water hyacinths and trash. A considerable amount of work was involved in getting it cleared up. Fortunately none of the big trees were uprooted though they lost a number of limbs. The lower

broken branches were trimmed off but high in the trees are many broken and torn branches, too high to be reached.

4. Pest Plant Control.

A great deal of water hyacinth washed over or was blown over the dikes of the pool. This pest plant was pretty well under control prior to the storm. We started off the season with only small amounts of hyacinth in the pool along the Intracoastal levee, along the Bell City Ditch levee and in the school section. A considerable amount of work was done from air boat and by wading to mop up these areas. However, a reconnaissance of the area after the storm showed a belt of hyacinth completely across the pool along the Intracoastal with smaller amounts along the Bell City Ditch and in the school section.

Ted Ball sprayed a strip 160 feet wide completely across the pool on August 15. A kill of about 75% was accomplished. All hyacinths hit were killed but pockets under the willows remained untouched. A considerable growth of lotus in the same area was also killed.

Mop up operations by airboat and wading were initiated immediately in the school section and in the pockets along the Intracoastal and were still going on at the close of the period.

Fortunately there appeared to be little or no alligator weed. It must be assumed that the refuge cattle and nutrias cleaned this up.

A considerable program spraying for hyacinth must be planned for next spring. Airplane application will probably again be needed but it is felt that only by the use of a marsh buggy will it be possible to clean out the pockets along the Intracoastal levee. We believe it essential that a marsh buggy of some type be aquired.

5. Levees and Spillways.

The bridges over the spillways were completed this period.

The levees along the Intracoastal Canal and along the Bell City Ditch are in a dangerous condition. During the storm waters crossed these levees in a number of places. Levels remained high over a long period and boat traffic accounted for considerable additional erosion. There is no berm left on either of these levees. They must be worked over and sections rebuilt if we are to maintain the pool.

The fill along the headquarters site was also badly eroded

during and after the storm. The bank was cut back to the foundations of the oil house. A considerable amount of fill and sloping is needed here.

B. Plantings.

1. Aquatics and Marsh Plants.

None.

2. Trees and Shrubs.

None.

3. Upland Herbaceous Plants.

None.

4. Cultivated Crops.

Great plans had been made for planting the entire farm in green browse crops for the geese. It was planned to begin breaking land as soon as possible after the first of July and to have the land ready for planting by September 1.

Following the storm water levels were so high that water flowed back through the outlet pipe of the pump and flooded the farm. To this was added the heavy rains. By the time the farm was pumped out and dried up it was too late to plan on planting very much. The weed growth was too rank to disc under so mowing was initiated.

At present it looks as though only about 50 acres can be planted to ryegrass. The remainder will be mowed and burned to provide for a growth of native grasses for browse.

C. Collections.

None.

D. Receipt of Seed and Nursery Stock.

None.

IV. ECONOMIC USE OF REFUGE

A. Grazing.

The refuge grazing plan was amended this period to permit the grazing of Unit 3 during the odd years when rice is not planted on Farming Unit 3.

A permit was issued to Mr. Cleveland Broussard for grazing not over 104 AUM's between May 1 and December 31 of this year.

B. Farming.

There was no cooperative farming on the refuge this period.

C. Fur Harvest.

Nothing to report.

D. Oil Development.

The Frankfort Oil Company moved into the refuge about May 1 and began the construction phase of their oil development. Due to the delay in getting started and problems which arose as construction progressed there was insufficient time to permit drilling. All construction work was completed, however. A landing slip was dug and bulkheaded, a dock constructed and the road-dike with bridge and culverts completed. The ring-levee and waste pits were completed at the drilling site. After all construction work was completed the site was cleaned up, the dike was plastered with muck disked and fertilized and planted to Bermuda grass and clover.

A considerable amount of time was spent conferring with Mr. Skarda, Resident Engineer and Mr. Workman, District Manager on details of the construction. Daily trips were made to the work site to check on progress during the early stages of construction.

The Shell Oil Company was conducting a seismic survey in the NW corner of the pool as the period ended.

E. Timber Removal.

None.

V. FIELD INVESTIGATIONS AND APPLIED RESEARCH

An ecological survey of the pool area was made during the period by Dr. Bourn with the assistance of refuge personnel. Two lines transects were run across the pool, one on a north south line and one running east - west. Water depth and vegetational components were noted. Results indicated the presence of North - South ridges and also indicated that if another foot of water could be held desirable aquatics would be favored over such undesirables as bull-tongue.

A brief survey of that portion of the refuge south of the Intra-coastal Canal by Dr. Bourn and the refuge manager. Using the spoil bank of the pipeline ditch running parallel to the Intracoastal Canal as an indicator, tests were made to determine the depth of peat. Observations were also made of the vegetational character of the area, which is a solid saw-grass marsh.

Dr. Van T. Harris visited the refuge and made further observations on his nutria transects.

VI. PUBLIC RELATIONS

A. Recreational Uses.

There was little recreational use made of the refuge, except for fishing, which will be discussed later, and birdwatching. Several persons visited the refuge to observe and photograph the nesting birds on Willow Island.

B. Visitors.

There were few official visitors to the refuge during the period.

Pilot-Biologist Ted Ball visited August 14 and 15 and conducted spraying operations.

Refuge Manager John Sutherlin visited the refuge June 10 to arrange for the gathering of Brasenia for transplanting at Sabine.

Maintenance Man Davis of Reelfoot Refuge came to the refuge to effect the transfer of the marshland ditcher on August 20.

Game Agent Stanley Harris flew in on July 2 to check on damage from hurricane.

Messrs Van T. Harris and David Spencer visited the refuge on May 15 in connection with nutria investigations.

Ass't Regional Refuge Supervisor Carl Fermanich with Biologist Warren S. Bourn made an inspection of the refuge on August 28.

Dr. Bourn made several trips to the refuge in connection with studies.

Several visitors came to the refuge to photograph the nesting wading birds. Among these were Mr. and Mrs. Randolph Baset of Houma, La., Mrs. Thase Daniel and Mrs. G. M. McDavid of El Dorado, Arkansas and Dr. Dick Payne of Natchitoches, La., and Dr. Claer A. Brown of Baton Rouge, La.

Explorer Post 69 of Lake Arthur, of which the manager is Adviser, visited the refuge and was shown around on May 19th.

There were many other business callers from Frankfort Oil Co. and their contractors, and other oil companies wishing to make surveys, salesmen and others.

C. Refuge Participation.

The refuge manager participated in the activities of several organizations including Explorer Post 69, the Welsh and Jeff Davis Rod and Gun Clubs, and the Lions Club of Lake Arthur. In the latter he was appointed to the Boy and Girl Committee.

Several talks on "The Antarctic" were given to the manager during the period. Included were the Welsh Rod and Gun Club, Welsh Rotary Club, the Jeff Davis Rod and Gun Club, and to 80 young people who held a District meeting of the Methodist Youth Fellowship at the refuge headquarters.

A talk on "Antarctic Biology" was made to the Biology Class of Lake Arthur High School.

A talk on the "National Survey of Hunting and Fishing" was given to the Jennings Optimists Club.

One appearance was made with John Sutherlin on the Program "The Trotline" over KPLC-TV, Lake Charles.

Informal talks were made before the Calcasieu Rod and Gun Club, Lake Charles and a meeting of the 7th District Louisiana Wildlife Federation at Welsh.

Refuge personnel cooperated with the U. S. Geological Survey in providing their employees with monthly transportation out to a guage on Lacassine Bayou.

D. Hunting.

There was no hunting on the area or in the vicinity this period.

E. Fishing.

The importance of sport fishing in the refuge from a public relations stand point cannot be over stressed. This is an area where there is a great deal of interest in hunting and fishing. The Lacassine pool is the best fresh water fishing spot in the area and use is very heavy.

Immediately after the hurricane, the refuge was closed to fishing because of high waters, danger to dikes and possible pollution. It was opened again on August 1. Immediately there was an upsurge in fishing with excellent catches of bass and bream reported from the pool.

F. Violations.

Four men were apprehended hunting alligators in the refuge by

U. S. Game Management Agent Fred Williams, Refuge Clerk J. O. Riley and State Rangers Leger and LeLeaux. Two of these, John Trahan and Ulysses Monceaux were tried and convicted in Federal Court in Lake Charles. They were each fined \$100.00, suspended and placed on probation for 5 years. The cases against the other 2, Vincent Boudreaux, and Floyd Breaux, were dropped for lack of evidence. The alligators seized from these 4 men were skinned, salted and dried and retained as evidence. After the trial an attempt was made to sell them locally but a sale could not be made because they were too dry so they were destroyed.

VII. OTHER ITEMS

Personnel.

Jack E. Perkins, Refuge Manager
 Jasper O. Riley, Refuge Clerk
 V. W. Hough, Refuge Maintenance Man
 Gabriel Hebert, ~~Station~~ Leaderman
 Simonet Hargrave, Laborer
 John Hebert, Laborer Temporary

Submitted by

Jack E. Perkins
 Refuge Manager

9/4/57
 Date

Approved by

Carl V. Ferranich
 Act. Regional Refuge Supervisor

SEP 10 1957
 SEP 10 1957
 Date

 Regional Director

 Date



AUG . 31

Erosion of the shoreline at headquarters.
The building in the foreground is the oil
house.



AUG . 31

Another view of the erosion of the shore
line at headquarters. This is to the west
of Quarters # 1.



A view of the headquarters dock showing debris left by storm waters.



The headquarters water tower after the storm.



One of the beautiful live oak trees at headquarters showing how badly torn they were after "Audrey"



Grounds littered with broken limbs, leaves and moss under the big oak at headquarters.

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

WATERFOWL

REFUGE Lacrosse

MONTHS OF May TO August, 1957

(1) Species	(2) Weeks of reporting period									
	1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling Trumpeter										
Geese:										
Canada	13	13	13	13	13	13	13	13	13	13
Cackling Brant										
White-fronted Snow										
Blue										
Other										
Ducks:										
Mallard										
Black (Mottled)	100	100	100	100	100	100	100	100	1000	1000
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal										
Cinnamon teal										
Shoveler										
Wood	50	50	50	50	50	50	50	50	50	50
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy										
Other										
Pallens Tree duck	6	10	10	10	10	10	10	10	10	10
Coot:	100	200	100	100	100	10	100	100	100	100

3 -1750a

Cont. NR-1
(Rev. March 1953)WATERFOWL
(Continuation Sheet)EFUGE IncassineMONTHS OF May TO August, 1957

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen : total		
	11	12	13	14	15	16	17	18				
wans:												
Whistling Trumpeter												
ese:												
Canada	13	13	13	13	13	13	13	13	1,638			
Cackling												
Brant												
White-fronted												
Snow												
Blue												
Other												
ucks:												
Mallard (Mottled)	1000	1000	1000	1000	1000	1000	1000	1000	75,600			
Black												
Gadwall												
Baldpate												
Pintail								25	50	175		
Green-winged teal												
Blue-winged teal						100	500	1000	11,900			
Cinnamon teal												
Shoveler												
Wood	50	50	50	50	50	100	100	100	7,350			
Redhead												
Ring-necked												
Canvasback												
Scaup												
Goldeneye												
Bufflehead												
Ruddy												
Other												
Falvous tree duck	10	10	10	10	10	20	50	50	1,820			
oot:	100	100	100	100	500	500	100	500	9,800	6	400	

(over)

	(5)	(6)	(7)
	Total Days Use	Peak Number	Total Production
Swans			
Geese	1,438	16	
Ducks	96,845	2,800	
Coots	9,800	50	

SUMMARY

Principal feeding areas Pool

Principal nesting areas Pool

Reported by

Jack E. Perkins
Jack E. Perkins, 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 Lacassine Months of May to August 1957

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
Olivaceous Cormorant										
Anhinga										
Great Blue Heron										
Common egret										
Louisiana heron										
Snowy egret										
Little blue heron										
Green heron										
Black-crowned night heron										
Yellow-crowned night heron										
Least bittern										
White-faced glossy ibis										
White ibis										
Roseate Spoonbill										
Purple gallinule										
Common gallinule & Cattle egret										
II. <u>Shorebirds, Gulls and</u>										
<u>Terns:</u>										
Black tern										
Black-necked stilt										
Killdeer										

Common to abundant and nesting on refuge.

Common through summer

Common through summer

Common through summer

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove	Resident species - common.				
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow					

Reported by *Jack E. Perkins*
Jack E. Perkins, 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 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.

UNITED STATES
DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service

WATERFOWL UTILIZATION OF REFUGE HABITAT

Refuge Lacassine For 12-month period ending August 31, 1957

Reported by Jack E. Perkins Title Refuge Manager

(1) Area or Unit Designation	(2) Habitat Type Acreage	(3) Use-days	(4) Breeding Population	(5) Production	
Lacassine Pool	Crops	Ducks	22,970,245	75	150
	Upland	Geese	350,000		
	Marsh	Swans			
	Water	Coots			
	Total	16,000	Total	23,320,245	75
Farm Units 1 & 2	Crops	Ducks	70,000		
	Upland	Geese	4,981,112		
	Marsh	Swans			
	Water	Coots			
	Total	325	Total	5,051,112	
Farm Unit 3	Crops	Ducks			
	Upland	Geese	1,200		
	Marsh	Swans			
	Water	Coots			
	Total	9	Total	1,200	
Remainder of Refuge	Crops	Ducks	3,500,00	25	50
	Upland	Geese	7,50000		
	Marsh	Swans			
	Water	Coots			
	Total	316	Total	4,250,000	25
	Crops	Ducks			
	Upland	Geese			
	Marsh	Swans			
	Water	Coots			
	Total		Total		
	Crops	Ducks			
	Upland	Geese			
	Marsh	Swans			
	Water	Coots			
	Total		Total		
TOTALS	Crops	Ducks	26,510,245	100	200
	Upland	Geese	6,082,312	None	None
	Marsh	Swans			
	Water	Coots	690,700	100	400
	Total	325	Total	33,283,257	200

(over)

All tabulated information should be based on the best available techniques for obtaining these data. Estimates having no foundation in fact must be omitted. Refuge totals for all categories should be provided in the spaces below the last unit tabulation. Additional forms should be used if the number of units reported upon exceeds the capacity of one page. This report embraces the preceding 12-month period, NOT the fiscal or calendar year, and is submitted annually with the May-August narrative report.

INSTRUCTIONS

- (1) **Area or Unit:** A geographical unit that, because of size, terrain characteristics, habitat type and current or anticipated management practices, may be considered an entity apart from other areas in the refuge census pattern. Estimated acreage of each unit should be indicated.
- (2) **Habitat:** Crops include all cultivated croplands such as cereals and green forage, planted food patches and agricultural row crops; upland consists of all uncultivated terrain lying above the plant communities requiring seasonal submergence or a completely saturated soil condition a part of each year, and includes lands whose temporary flooding facilitates use of non-aquatic type foods; marsh extends from the upland community to, but not including, the water type and consists of the relatively stable marginal or shallow-growing emergent vegetation type including wet meadow and deep marsh; and the water category includes all other water areas inundated most or all of the growing season and extends from the deeper edge of the marsh zone to strictly open-water areas, embracing such habitat as shallow playa lakes, deep lakes and reservoirs, true shrub and tree swamps, open flowing water and maritime bays, sounds and estuaries. Acreage estimates for each type should be kept as accurate as possible through reference to available maps supplemented by periodic field observations and should agree with unit acreage.
- (3) **Use-days:** Use-days is computed by multiplying weekly waterfowl population figures by seven.
- (4) **Breeding Population:** An estimate of the total breeding population of each category of birds for each area or unit.
- (5) **Production:** Estimated total number of young raised to flight age.

Refuge Lacassine Months of May to August, 1945

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total		Hunting	For Re- stocking	For Research		
Bob White									175	Pertinent information not specifically requested. List introductions here.

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

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

REFUGE GRAIN REPORT

Refuge LacassineMonths of May through August, 1957

(1) VARIETY*	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) ON HAND END OF PERIOD	(7) PROPOSED OR SUITABLE USE*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Corn	45	-	45				0	45		45	
Rice, Zmith	10000	-	10 000				0	10 000		10 000	
Ryegrass	15000	-	15000				0	15000	15000		
Soybeans	30	-	30				0	30		30	

(8) Indicate shipping or collection points Lake Arthur, Louisiana(9) Grain is stored at Refuge Headquarters

(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.

LACASSINE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER, 1957

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF SPORT FISHERIES AND WILDLIFE

LAKE ARTHUR, LOUISIANA

LACASSINE NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER 1957

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LACASSINE NATIONAL WILDLIFE REFUGE
 Refuge Narrative Report
 September - December 1957

I GENERAL

A. Weather Conditions.

	<u>Precipitation</u>		<u>Temperature</u>	
	<u>This Month</u>	<u>Normal</u>	<u>Maximum</u>	<u>Minimum</u>
September	727	4.82	92	58
October	4.78	3.07	85	35
November	5.15	5.15	78	36
December	<u>4.71</u>	<u>5.04</u>	73	27
Total	21.91	18.08	Extremes 92	27

This period was above normal in rainfall as contrasted to the same period last year which was deficient by 1.62 inches. Rainfall during this entire year was plentiful and well distributed. This is the first year in the past 5, except for 1955, which was not deficient in precipitation. Though there was an excess of 13.65 inches in 1955, rainfall was poorly distributed that year; 8 months being quite dry.

Temperatures were near normal, slightly cooler than last year. Only one freeze occurred.

B. Habitat Conditions.

1. Water.

Pool levels remained higher this period than they have been for a number of years. Hurricane "Audrey" flooded the pool and subsequent rains kept the pool near full from then on.

Pool levels, based on Mean Low Gulf were as follows:

	<u>1957</u>		<u>1956</u>		<u>1955</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
September	3.96	3.74	2.76	2.24	3.72	3.58
October	4.06	3.78	2.14	2.02	3.78	3.48
November	3.96	3.84	2.70	2.10	3.74	3.52
December	<u>4.02</u>	<u>3.88</u>	<u>3.20</u>	<u>2.50</u>	<u>4.02</u>	<u>3.86</u>
Max. Dev.		.32		1.18		.54

The Mermentau River and other bodies of water remained quite high throughout the period. This, coupled with abundant rainfall, kept the adjoining marshes covered with water. This was quite a contrast to the dry conditions which obtained last year.

River gauge readings at headquarters, based on Mean Sea Level were as follows:

	<u>High</u>	<u>Low</u>	<u>Fluctuation</u>
September	3.00	2.20	.80
October	3.30	2.30	1.00
November	3.40	2.45	.95
December	3.00	2.30	.70
Extremes	3.40	2.20	1.20

2. Food and Cover.

Food in the pool was abundant at the start of the waterfowl season. High water levels encouraged the growth of Brasenia, pondweeds, wild celery and other aquatics at the expense of emergents. Heavy cuttings by nutrias on such emergents as bull tongue, saw grass and jointed spike rush, particularly in the south portion of the pool, created large openings and reduced the cover.

That area south of the Intracoastal Canal appeared to be almost completely devoid of food and cover as a result of hurricane "Audrey".

Other areas of the refuge had less cover and probably less food but the availability was greater because of openings created by "Audrey".

Weather conditions were such that very little farming could be accomplished. Approximately 25 acres were planted to rye grass, 46 acres were double disked and 45 acres were mowed. The ryegrass produced fairly well.

A note of interest is that mallards were observed feeding heavily on mud plantain, Heteranthera rubiformis, in the north section of the pool. The birds pulled up the whole plants from the bottom and fed on the leaves.

II. WILDLIFE

A. Migratory Birds.

1. Waterfowl.

Geese were somewhat more abundant on the refuge and adjoining area this year than last. Canada geese were most abundant on the farm area and the adjoining prairie of the Lacassine Company and out in the pool. These birds appeared to use the pool as a feeding and resting area a great deal more this year than last.

White-fronted geese were abundant but primarily their feeding area was off the refuge. The greatest concentration of these birds was at goose island on the Lowery Plant of the Lacassine Company with a few on the refuge farm and on the pool and others scattered on the Illinois Plant.

Blues and snows were actually scarce on the refuge most of the time. They were abundant but on goose island and at various points in the Illinois Plant.

Ducks were most plentiful within the pool and were largely found in large rafts in the Brasenia beds. Fulvous tree ducks were numerous and remained rather late. They were found in large groups along the south and southeast portion of the pool and up in the northwest corner.

Mallards were well scattered over the pool and late in the period began spreading out into the marshes along both sides of Lacassine Bayou.

Ducks moved comparatively little this year and previously established flight patterns went unused. There was a regular flight out of the pool to the north at sunset but the ducks returned about 3 a. m. There was no regular flight to the east this year as there was last.

The expected shortage of food in areas outside the refuge pool, as a result of Hurricane "Audrey", did not develop. Apparently all the marshes were opened up and marshes were well flooded so that waterfowl, particularly ducks, found plenty of feeding and resting places without moving a great deal. Rice fields were used by the birds comparatively little.

2. Other Waterbirds.

Coots were abundant this year but did not appear to be as widely scattered as usual. They were largely concentrated within the pool, often in large rafts.

Herons and egrets were abundant during the early part of the period and could be seen in large numbers on those marshes beat down and drowned out by the storm. During the latter part of the period they assumed their normal numbers.

3. Shorebirds.

Shorebirds are not common on this refuge. A great number of snipe were observed moving over in migration but few wintering birds were observed. There is little shorebird habitat at Lacassine except when the farm is flooded.

4. Doves.

The habitat for doves is rather poor here. A great many doves were observed in surrounding areas, particularly during the early part of the period.

B. Upland Game Birds.

Only a few quail were observed near headquarters.

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

The most abundant animals on the refuge is the nutria. Hurricane "Audrey" resulted in a great increase in the number of these animals on the refuge but washing them up from the areas to the south. At the same time a great deal of the emergent vegetation, on which the nutrias depend for feed was killed out by the storm. An over population resulted. Plans were therefore made for an intensified trapping program to reduce these animals to safe levels.

The first freeze of the season occurred on December 11th. Bull tongue and water hyacinth were killed back, further reducing the feed supply. About the time that trapping started the trappers reported finding sick and dead nutrias in rather large numbers. Dr. Van T. Harris was notified of this and requested to investigate in an effort to determine the cause of this die-off, whether from starvation or disease. Dr. Van Harris is at present conducting such an investigation.

Once trapping started it became evident that there were many more mink on the refuge than had been previously estimated.

Otters, 'coons, skunks and armadillos were found in about their usual numbers.

An unfortunate result of Hurricane "Audrey" was the deposition of hundreds of cattle and hogs and a few horses on the refuge. All of the cattle, about 250, and the horses were removed by Cameron residents and returned to their owners. About all of the hogs were finally removed by Cameron Parish residents and some shooting by refuge personnel.

D. Predaceous Birds.

Hawks, owls, eagles and other predaceous birds are few in number and present no problem.

E. Other Birds.

There is nothing of interest to report under this heading.

F. Fish.

Fishing conditions within the pool were excellent during this period. Waters were high and very clear. Fish appeared to be abundant and in good condition. Fishing pressure was heavy. All the natural waters were muddy and levels high with the result that the refuge pool was the only good fishing area for miles. Fishermen came from Lake Charles, Welsh, Jennings, Crowley, Lafayette and further. Most reported excellent catches of bass and crappie. Fishing in the pool was closed October 15th.

G. Reptiles.

For quite some time after the storm snakes, particularly moccasins, were very abundant in the marshes and along the ridges.

H. Disease.

No disease present as far as is known except for possibility in nutria, which is being investigated,

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development.

Work continued during this period in repairing damage suffered from the hurricane. Roofing shingles were salvaged from the fur house and used to repair the other damaged roofs. Siding was replaced on both boat houses and paint work was patched up.

The Chris-Craft boat was gotten back from the boat builder who had made hull repairs and rebuilt top, windshield and upholstery. This boat was then sanded and painted, overhauled engine replaced, new instruments and battery installed and put back into service.

A new septic tank was installed to replace one rusted out. A prefabricated metal building 12 X 24 feet was purchased and was being erected at the end of the period. It will be used for storage of grain and seed.

Both air boat sheds were patched up.

Plans were completed for a revision of the wiring at headquarters.

R.E.A. was requested to and did rearrange power lines and installed two new transformers to provide a better power source and 220 volt service to principal buildings.

B. Plantings.

1. Cultivated Crops.

It was planned that the entire farm, 325 acres, would be planted to forage crops for geese, however, weather conditions were such that even with the drainage pump working the fields could not be dried out sufficiently to permit this. A heavy crop of weeds could not be turned under with the equipment available. The net results were 45 acres mowed, 46 acres were double disked and 25 acres were planted to rye grass. A fair growth of rye grass resulted, though the fields were too wet to provide optimum conditions.

A farming permit was to have been issued for Unit 3 for the production of rice during the 1958 season. However, the permittee normally farms this unit in connection with his own adjoining land. The hurricane disrupted his normal rice - grazing cycle by completely destroying his rice crop. The result being that if farmed, our unit 3 would be completely isolated from the permittee's own rice crop making it economically unprofitable. Hence, Unit 3 will not be farmed until 1959 and a permit was issued for grazing Unit 3 for the 1958 season.

C. Collections and Receipts.

There were no collections made and the only receipt was 65 bushels of shelled corn from Wheeler for goose feeding.

D. Control of Vegetation.

Approximately 128 acres of water hyacinth, (Eichhornia crassipes) along the southern edge of the pool were treated by aerial application by Ted Ball on August 15. 2,4-D was applied at the rate of 5.1 pounds acid-equivalent per acre. Diesel oil was used as a diluent. Cost of materials was \$481.68. Total cost was \$503.64. Total cost per acre was \$3.95.

Map up operation on water hyacinth, both before and after the aerial application, were carried on by two men from boats and by wading. The School Section and adjoining area along the north and small bays along the Intracoastal were sprayed in this way. Approximately 110 gallons 2,4-D at a cost of \$247.50 were used and labor costs were \$325.50 for a total of \$573.50. Roughly 11½ acres were treated. Kill was about 80% complete

E. Planned Burning.

There was no burning accomplished though it was planned to burn the brush on the levee at the west side of the pool. The storm thinned out that vegetation until there was not enough to carry a fire.

An attempt was made to burn off the litter deposited by the storm on that area of the refuge south of the Intracoastal Canal but without results.

F. Fires.

There were no fires on the refuge during the period.

IV. RESOURCE MANAGEMENT

A. Grazing.

Grazing conditions deteriorated this period owing to a number of factors. The hurricane destroyed a great deal of vegetation. High water levels obtained for a long period drowning out marsh vegetation and further concentrated stock on the ridges where they grazed heavier than they normally would. Competition from an increased nutria population and from the refuge cattle until they were removed further reduced the grazing. The situation was closely watched by refuge personnel and by permittees and cattle were moved out earlier than usual.

On all units except 9 and 10 new grazing permits specify greatly reduced grazing. Units 9 and 10 are rather high and less damaged than the others. They will be closely watched. Units 4, 6 and 11 were assigned to permittees for the first time but the permitted AUM's were much lower than permitted under the grazing plan.

Permitted AUM's for the various units during 1957 and 1958 are as follows:

<u>Unit</u>	<u>1957</u>	<u>1958</u>
2	960	600
3	104 (8 months)	120 (12 months)
4	0	180
5	420	180
6	0	144
7	804	360
8	384	180
9	204	204
10	816	816
11	105 (7 months)	60

C. Fur Harvest.

All signs indicated an over population of nutria, probably due to the hurricane. Plans were therefore made to harvest as many as possible. Concessions were made to attract trappers by reducing the government's share of the take from 40% to 30%; by the furnishing of more stretchers and by realigning the trapping units. We were still unable to attract enough good trappers. Permits were issued to 5 trappers, 2 of whom had assistants. Trapping started December 15th. Results for the first 2 weeks of the season were pretty good. A comparison of the first 2 weeks of this season as compared to last follows:

	last year	this year
Nutria	1138	1874
Mink	22	107
Otter	6	8
'Coon	23	71
Muskrat	2	1

A complete report will be submitted with the next report.

D. Oil Development.

There is little to report here. Frankfort Oil Company completed their operations and withdrew on September 15. Landing slip, road dike and drilling site were completed and drilling at site # 1 will commence April 1.

Shell Oil Company completed a survey in the northwest corner of the refuge.

Tidewater Oil Company has indicated an interest in drilling in the pool during the coming season.

VI FIELD INVESTIGATION OR APPLIED RESEARCH

There is nothing to report except the previously mentioned study being made by Dr. Van T. Harris on the nutria.

VI. PUBLIC RELATIONS

A. Recreational Uses.

Except for fishing there was little recreational use made of the refuge during the period. One group of 4 bird watchers from Baton Rouge were taken out to see the refuge and the birds.

B. Refuge Visitors.

Assistant Regional Game Management Supervisor Warren Lupton, accompanied Agent Van Carlton and State Ranger LeLeux, visited the refuge on November 13 to get information on waterfowl foods.

On November 16, 17 members and guests of the Southwest Louisiana Institute Biology Club visited the refuge and were shown around.

Dr. Van T. Harris visited the refuge on several occasions in connection with nutria studies.

U. S. Game Management Agents Van Carlton, Joe Perroux and Willie Parker and State Game Ranger Louis LeLeux visited the refuge on several occasions in connection with law enforcement work in the vicinity.

C. Refuge Participation.

The refuge manager was active in the affairs of the Jeff Davis and Welsh Red and Gun Clubs, Lake Arthur Lion's Club and Explorer Post 69. In addition talks were given by him to several groups.

Talks on "Antarctica" were given to 3-4th grades, 3 - 8th grades and 1 high school class at the Lake Arthur school. The film "Behind the Flyways" was shown to the Welsh and Jeff Davis Red and Gun Clubs. An informal talk was given at the District Lion's club meeting on, "How the Waterfowl Regulations are Set."

D. Hunting.

Hunting in the vicinity of the refuge this season was poor. Few birds were killed. Birds flew very poorly. When they did fly they were high and refused to decoy. There was too much water in the marshes and the birds were too scattered. Only in the School Section in the north part of the pool was shooting good. A great number of geese and ducks were killed there.

E. Violations.

There were no known violations on the refuge this period. Refuge Personnel participated in making 2 cases. J. O. Riley and Von Hough assisted State Ranger LeLeux in apprehending a hunter with over the limit of doves. The case was settled before a J.P. with a \$50.00 fine. A case of hunting without a stamp was made by Jack Perkins with Ranger LeLeux. This was also settled before a J.P. with a \$50.00 fine.

VII, OTHER ITEMS

Refuge Personnel:

Jack E. Perkins, Refuge Manager
Jasper O. Riley, Refuge Clerk
Vendhelen W. Hough, Refuge Maintenance Man
Gabriel Hebert, Laborer Leaderman (WAE)
Simonet Hargrave, Laborer (WAE)

Submitted by: Jack E. Perkins
Refuge Manager

1/22/58
Date

Approved by: Lawrence S. Simons
Regional Refuge Supervisor

JAN 28 1958
Date

Regional Director

Date

WATERFOWL

REFUGE Lacassine

MONTHS OF September TO December, 19 57

(1) Species	(2) Weeks of reporting period									
	9/1-7	9/8-14	9/15-21	9/28-28	9/29-10/5	10/12-18	10/19-25	10/26-11/1	11/2-8	11/9-15
	1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling Trumpeter										
Geese:										
Canada			7	7	50	50	4,000	4,000	4,000	4,000
Cackling Brant										
White-fronted			1	1	500	2,500	10,000	12,500	16,000	16,000
Snow						10	500	2,500	4,000	4,000
Blue						90	5,000	25,000	40,000	40,000
Other										
Ducks:										
Mallard			200	200	500	750	35,000	75,000	15,000	15,000
Black										
Gadwall							100	10,500	10,500	500
Baldpate									1,000	2,000
Pintail			500	500	15,000	5,000	5,000	5,000	20,000	80,000
Green-winged teal									1,000	5,000
Blue-winged teal			2,000	3,000	20,000	10,000	5,000	3,000	3,000	3,000
Cinnamon teal										
Shoveler						200	200	200	1,000	1,000
Wood			25	25	25	25	25	25	25	25
Redhead										
Ring-necked									2,500	8,000
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy									100	100
Other										
Fulvous Tree Duck			500	500	2,000	1,000	500	250	1,500	2,500
Mottled Duck			200	500	500	500	250	200	500	500
Coot:			500	500	1,500	2,000	2,500	4,000	10,000	10,000

Int. Dup. Sec.,

WATERFOWL
(Continuation Sheet)REFUGE LeassimoMONTHS OF September TO December, 19 57

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production : Broods: Estimat : seen : total	
	11	12	13	14	15	16	17	18			
Swans:											
Whistling Trumpeter											
Geese:											
Canada	500	500	500	1,000	1,000	1,000	1,000			151,390	
Cackling											
Brant											
White-fronted	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000		1,872,500	
Snow	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000		273,000	
Blue	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000		2,730,690	
Other											
Ducks:											
Mallard	60,000	60,000	100,000	120,000	120,000	120,000	120,000	120,000		5,892,990	
Black				3,000	3,000	3,000	3,000	3,000		21,000	
Gadwall	500	500	500	500	500	500	500	500		175,700	
Baldpate	2,000	2,000	3,000	3,000	3,000	3,000	3,000	3,000		154,000	
Pintail	45,000	45,000	50,000	60,000	60,000	60,000	60,000	60,000		3,612,000	
Green-winged teal	5,000	5,000	45,000	60,000	60,000	60,000	60,000	60,000		2,107,000	
Blue-winged teal	1,000	1,000	5,000	5,000	5,000	5,000	5,000	5,000		546,000	
Cinnamon teal											
Shoveler	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		67,200	
Wood										1,500	
Redhead											
Ring-necked	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000		2,278,500	
Canvasback											
Scaup				1,000	1,000	1,000	1,000	1,000		28,000	
Goldeneye											
Bufflehead											
Ruddy	100	100	100	100	100	100	100	100		6,300	
Other											
Fulvous Tree Duck	2,500	2,500	2,500							117,250	
Mottled Duck	500	500	2,000	2,000	2,000	2,000	2,000	2,000		104,650	
Coot:	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000		995,500	

(over)

	(5)	(6)	(7)
	<u>Total Days Use</u>	<u>Peak Number</u>	<u>Total Production</u>
Swans			
Geese	<u>5,017,500</u>	<u>75,000</u>	
Ducks	<u>15,112,050</u>	<u>300,600</u>	
Coots	<u>955,500</u>	<u>15,000</u>	

SUMMARY

Principal feeding areas Pool

Principal nesting areas _____

Reported by

Jack E. Perkins
Jack E. Perkins, 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 Lacassine

Months of September to December 1957

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total Estimated Number
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	
I. <u>Water and Marsh Birds:</u>										
Great Blue Heron										
American Egret										
Snowy Egret										
Little Blue Heron										
Green Heron										
American Bittern										
Ashinga										
Black-crowned night heron			Common to abundant thru period.							
Yellow-crowned night heron										
White Ibis										
Rails										
Gallinules										
II. <u>Shorebirds, Gulls and Terns:</u>										
Greater yellowlegs			Common thru period							
Lesser yellowlegs										
Wilson's snipe										

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u> Mourning dove White-winged dove					2,000
IV. <u>Predaceous Birds:</u> Golden eagle Duck hawk Horned owl Magpie Raven Crow Marsh hawk Pigeon Hawk Sparrow hawk Red-Shouldered hawk	None Common Occasional Common Common Common				

Reported by

Jack E. Perkins
Jack E. Perkins, 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 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.

UPLAND GAME BIRDS

REFUGE LacassineMonths of September to December 31, 1958

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Bob-white			1						50	Pertinent information not specifically requested. List introductions here.

3-1753
Form NR-3
(June 1945)

BIG GAME

Refuge Leassine

Calendar Year 1957

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population		(8) Sex Rati
			Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter Loss	Number	Source	At period of Greatest use	As of Dec. 31	
Common Name	Cover types, total Acreage of Habitat	Number												

Remarks: **1 deer reported seen on Brown's Island after hurricane "Audrey"**

Reported by Jack E. Perkins, Refuge Manager

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) REMCVALS: Indicate total number in each category removed during the year.
- (5) LCSSSES: 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 RATIC: Indicate the percentage of males and females of each species as determined from field observations or through removals.

Refuge LacassineYear 1947

Botulism

Lead Poisoning or other Disease

Period of outbreak _____

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 No botulism noted.

Kind of disease _____

Species affected _____

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

Number Recovered _____

Number lost _____

Source of infection _____

Water conditions _____

Food conditions _____

Remarks No known disease present.

Refuge _____ Year 194__

Species	Relative Abundance	Sport Fishing		Commercial Fishing		Restocking		Number removed for Restocking
		Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	
Lg. Mouth Black Bass	Abundant	9,000	36,000	None		None		None
Crappie	Abundant							
Sunfish	Abundant	1,500	10,000					

REMARKS: These are estimates based on registrations at spillways. Commercial fishing in canals and bayous not regulated nor are any records kept.

3-1757
Form NR-7
(April 1946)

PLANTINGS
(Marsh - Aquatic - Upland)

Refuge Leasgine

Year 1957

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Planting	Survival	Cause of Loss	Remarks
NONE								

TOTAL ACREAGE PLANTED:

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

3-1758
 Form NR-8
 (Rev. Jan. 1956)

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge Louisiane

County Cameron

State Louisiana

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage Planted	Green Manure, Cover and Water-fowl Browsing Crops Type and Kind	Total Acreage
	Acres	Bu./Tons	Harvested		Unharvested				
			Acres	Bu./Tons	Acres	Bu./Tons			
Rye grass					25	25	25	Rye grass	25
								Fallow Ag. Land	309

No. of Permittees: Agricultural Operations 0 Haying Operations 0 Grazing Operations 4

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
				1. Cattle	342	3774	566.10	1517
				2. Other				
				1. Total Refuge Acreage Under Cultivation				25
Hay - Wild				2. Acreage Cultivated as Service Operation				25

DIRECTIONS FOR PREPARING FORM NR-8
CULTIVATED CROPS - HAYING - GRAZING

Report Form NR-8 should be prepared on a calendar-year basis for all crops which were planted during the calendar year and for haying and grazing operations carried on during the same period.

Separate reports shall be furnished for Refuge lands in each county when a refuge is located in more than one county or State.

Cultivated Crops Grown - List all crops planted, grown and harvested on the refuge during the reporting period regardless of purpose. Crops in kind which have been planted by more than one permittee or this Service shall be combined for reporting purposes.

Permittee's Share - Only the number of acres 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. Report all crops harvested in bushels or fractions thereof except such crops as silage, watermelons, cotton, tobacco, and hay, which should be reported in tons or fractions thereof.

Government's Share or Return - Harvested - Show the acreage and number of bushels harvested for the Government of crops produced by permittees or refuge personnel. Unharvested - Show the exact acreage and the estimated number of bushels of grain available for wildlife. If grazing is made available to waterfowl through the planting of grain, cover, green manure, grazing or hay crops, estimate the tonnage of green food produced or utilized and report under Bushels Unharvested column.

Total Acreage Planted - Report all acreage planted, including crop failures.

Green Manure, Cover and Waterfowl Grazing Crops - Specify the acreage, kind and purpose of the crop. These crops and the acreage may be duplicated under cultivated crops if planted during the year, or a duplication may occur under hay if the crop results from a perennial planting.

Hay - Improved - List separately the kinds of improved hay grown. Annual plantings should also be reported under Cultivated Crops, and perennial hay should be listed in the same manner at time of planting.

Total Refuge Acreage Under Cultivation - Report total land area devoted to agricultural purposes during the year.

REFUGE GRAIN REPORT

Refuge **Lucasine**

Months of **September** through **December** , 195

(1) VARIETY*	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) ON HAND END OF PERIOD	(7) PROPOSED OR SUITABLE USE*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Corn	45	65	110				0	110		110	
Rice, Zenith	10 bbl	0	10 bbl			3	3	7		7	
Rye grass	1500 #	0	1500 #		700 #		700 #	800 #	800 #		
Soybeans	30	0	30				0	30		30	

(8) Indicate shipping or collection points **Lake Arthur, Louisiana**

(9) Grain is stored at **Refuge headquarters.**

(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.

3-1759
Form NR-9
(April 1946)

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

Refuge Lacassine

Year 1957

Species	Collections				Receipts		Total Amounts on Hand	Amount Surplu
	Amount	Date or Period of Collection	Method	Unit Cost	Amount	Source		
NO COLLECTIONS OR RECEIPTS.								

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

Refuge LacassineYear 194
197

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 TIMBER REMOVED.								

Total acreage cut over _____

Total income _____

No. of units removed B. F. _____

Method of slash disposal _____

Cords _____

Ties _____

PUBLIC USE - C. Y. 1957

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

- A. Lacassine National Wildlife Refuge.
- B. Estimated total use of all types 14,000 visitor-days.
1. Hunting use (for those refuges having public or regulated hunting.)
- Estimate visitor-days 0.
2. Fishing use.
- Estimated visitor-days 10,500.
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.)
- Estimated visitor-days 3,500.
- C. Remarks.

January 22, 1958

Date

Jack E. Perkins

Refuge Manager