MONTEZUMA

.

i,

10

NARRATIVE REPORTS

JANUARY - DECEMBER 1946

DIVISION OF WILDLIFE REFUGES DATE: DATE: 1947. ROUTING SLIP IR. SALYER SECTION OF HABITAT IMPROVEMENT: 5 M . BRIDAN PAD 3/31 Miss Cook Juce 1-SECTION OF OPERATIONS: SECTION OF LAND MAMAGEMENT: lir. Regan Mr. Ball Iliss Baum STENOGRAPHERS: SECTION OF STRUCTURES: 157-3/27 REARKS: MONTEZU IONAL WILDLIFE REFIGE NARRATIVE REPORT SEPTEMBER - DECEMBER 1946. Return to:

11528

(marging



Montezuma National Wildlife Refuge September-December, 1946

Index

I General	
A-Weather conditions	1
B-Water Conditions	1
II Wildlife	
A-Migratory Birds	1
B-Upland Game Birds	2
C-Big Game Animals	2 2 3 3
D-Fur Animals, Predators, etc.	2
E-Predaceous Birds	3
F-Fish	3
III Physical Development	
A-Physical	3
B-Plantings	3
C-Collections	3
IV Economic Use	
C-Fur Harvest	4
D-Timber Removal	4
E-Other Uses	4
V Field Investigation of Research	4
VI Public Relations	
B-Refuge Vistors	4
C-Refuge Participation	4
F-Violations	4
VII Other Items	5 *
Signature	5

NR-Forms

Montesuna National Wildlife Refuge September-December, 1946

I - GENERAL

.

A - Weather Conditions were rather normal except for the precipitation during December which was only 1.98 inches as compared with an average of about 3. Only slightly more than half of this was in the form of snow - 15.25 inches - which is way below the average for the month. Following is a summary of the conditions as recorded at the Mays Point Lock of the New York State Barge Canal.

Month	Snow	Rain	Max. T.	Min. T.
September		4.02	80	38
October		4.16	75	30
November		2.33	69	28
December	1.15	.92	63	6
Totals	1.16	11.53	80	- 6

B - Water Conditions were satisfactory and both the storage and main pools had to be lowered to normal during September and October. This was accomplished by opening the connecting spillway and Mays Point spillway slightly for several weeks. The storage pool has been maintained fairly constant at 384.5 and the main pool at 382.5.

II WILDLIFE

A - Migratory Birds have been conspicuous during this period by their unusual numbers while the migration thruout the country was reported to be very scanty. With the completion and flooding of the refuge pools the migratory population of waterfowl has gradually increased from about 10 thousand the first year to an estimated usage of 50 thousand during the fall of 1946. Hunting in the vicinity has also gradually improved until this year when it was very poor. Feeding was primarily on the aquatic and marsh vegetation of the pools but some groups utilized refuge fields of buckwheat, millet and smartweed in the immediate vicinity. It is notable that the ducks did not follow their usual practice of feeding in grain fields near the refuge. Hunters reported no ducks at all in nearby fields and very few on Cayuga Lakw during the entire season while concentrations of 20 thousand gathered on the refuge.

Pintails, baldpate, blacks and mallards comprised the bulk of the migration but there were also increases in blue and green winged teal. Many of the blacks, mallard and blue winged teal were produced on the refuge and around ponds, streams and sloughs in the vicinity. Food and Cover was very satisfactory, the rank production

of sago and bushy pondweed, smartweeds, duckweed, bulrush, chufa, burreed, coontail and other food plants in lesser quantity serving their purpose well. Sections of marsh denuded of cattail by muskrats have provided excellent protected openings for ducks. Larger open water areas were little used except to some extent by scaup, canvasback and redhead.

A few shorebirds stopped in this season, primarily greater and lesser yellow-legs, killdeer and Wilson snipe. The few mud flats and shores along dikes afforded the primary attraction for this group.

B - Upland Game Birds consisting of the ring-necked pheasant were conspicuous by their near absence. A few broods were successfully produced but their numbers are still very small. This condition is comparable to that in general thruout the State, the result of the severe winter of two years ago.

C - Big Game Animals continued on an even keel as regards population. Bucks were not too common althe hunters took a fair number in the vicinity during the fall open season. While there are plenty of food and yarding areas on the refuge the present number of deer is about right so that they do not become a nuisance in nearby farm fields. Deer feed every night on the lawn in front of the headquarters dwelling.

D - Fur Animals, Predators, etc - Muskrats have increased as per usual and in spite of the depletion of some of the cattail area it is believed that the population is just as great as usual.- about 20,000. The storage pool marsh near highway 414 is the heaviest populated and it is expected we'll trap from this 100-acre marsh alone 3500 - 5000 muskrats. For several years our total removal has been near 8000 and it is possible the figure may approach 10,000 this year. During September the writer flew by plane over the marshes in order to gain a general idea of house concentrations and it is believed that a very close estimate can be made this way of the number of houses per acre.

In several denuded areas of the main pool muskrats have continued to build houses and it is planned to trap these live houses as well as feeders in these locations. This seems to be one condition for which nature does not provide since it has been our experience that the meagre food supply that does exist there is soon depleted and the rats then die of starvation in their houses.

Since the sales figures usually are not known for reporting on the January-April NR-4 Form we will report here the proceeds from last winter's muskrat hides. On July 23, 1946 there were sold 3705 muskrat hides for a net total of \$14,684.14 which amounts to \$3.95 per pelt. According to all indications prices won't be quite so good this year.

During the fall predator program 3 trappers covering the entire refuge removed 109 raccoon, 53 mink, 21 red fox and 6 gray fox. This is similar to the normal catch except that a few more fox were taken than usual. We feel that there is still a population of over 500 raccoon and that trapping alone never will sufficiently reduce the animal to keep it in proper centrol. Damage is continually observed and reported during the summer and fall both on and in the vicinity of the refuge. Duck traps were molested intermittently by raccoon and many waterfowl nests are without question also destroyed.

Other fur animals include the possum, skink, weasel and gray squirrel.

E - Predaceous Birds consist primarily of crows which have become so numerous in the vicinity that their numbers must be many thousand. Destruction of birds eggs is apparently their frequent and primary objective.

F - Fish in the pools include carp, bullheads and dogfish MR with the emphasis on carp. This scavenger is increasing each year and is rather difficult to seine in the refuge pools.

III REFUGE DEVELOPMENT and MAINTENANCE

A - Physical - Under this category the following items were handled:

- Painted patrolman's residence and the Hq tower cab.

- Poured improved concrete floor in Hq dwelling.
- Poured outside basement wall & installed foundation drain in patrolman's dwelling to help waterproof it.
- Hauled 30 truck loads of cinders for road and driveway improvement.
 - Shipped D6 Caterpillar, angledoser and LeTourneau carryall.
- Installed bottled gas line at patrolman's residenc.e.
- Painted several rooms in patrolman's dwelling.
- Repaired numerous doors, windows and storm windows.
- Installed outside lights at office and patrolman's dwelling.
- Put up 6-foot chicken wire on exhibition pond fence to hold pinioned ducks.
- Trimmed around and maintained boundary signs.
- Creosoted the White Brook Spillway catwalk.
- Maintained water pumps in 3 buildings.
- Overhauled 2 pickups and 1 dump truck.
- Repaired plumbing, bubit coal bin and cupboards in Hq dwelling.
 - Made a shipment of barbed wire.
 - Collected wildcelery and shipped it as well as millet & smartweed.
 - Installed front pull hook assembly on Caterpillar 22 tractor.
- Repaired grate in furnace.

.

- Constructed electric motor mounting & flexible shaft outfit.

Many other smaller maintenance jobs were too numerous to mention such as(Caesar) tire repairs, office and shop cleanup, and welding and shop jobs to facilitate each day's work, and many regularly recurring jobs.

B - Plantings included the sowing of wild millet and smartweed seed along a section of newly graded dike slope. However, being so late in the fall germination could not be expected until spring. Cultivated crops raised by croppers for the Government share were cats, corn, buckwheat, wild millet and smartweed. All were successful and good yields were produced but the corn was entirely destroyed by crows, blackbirds and raccoon before it was quite ready to harvest.

C - Collections consisted of the hand gathering of about 50 pounds of wildcelery seed pods in Cayuga Lake for shipment to Moosehorn.

Page 4

IV ECONOMIC USE

C - Fur Harvest - The take of the three trappers on the predator program was described under item II-D. Average prices obtained by the trappers were about \$2 for raccoon, \$15 for mink and \$3 for fox. Trappers were given 60 % of these furs for their share.

D - Timber Removal - during this time has been for the purpose of making clearings in the tract of swamp timber south of Highway 20. Openings then provide shrubs and reproduction of value as food for more wildlife such as deer and various song birds. The sales have been at the rate of \$.50 per standard cord.

E - Other Uses include the sale of flagg(cattail) for cooperage from areas of the marsh where openings would be desirable. All such cuttings do not necessarily mean an opening but under certain conditions the cattail is killed out as a result of such cutting.

V FIELD INVESTIGATION or RESEARCH

Banding waterfowl was continued this year but a relatively small number were taken due to the fluctuating water levels. Even a 1-2 inch change in level affects the operation of a duck trap in the locations where it is necessary that we place them. The writer is planning the development of a floating raft for a trap that can be towed into into any desirable location and not affected by minor changes in water level.

VI PUBLIC RELATIONS

B - Refuge Visitors record	led are as	follows:
Mr Arthur Miller, Refuge Supervisor,	9/23,24,	inspection
Mr Philip Dumont, Central Office,	10/20	inspection
Mr Arthur Miller, Refuge Supervisor,	11/13,14	inspection
Mr Johnson, Central Office	11/13	Ħ
Mr Henry Markus, Reg. Office	11/13	
Sgt LJFox, State Police	12/7	investigation

In addition several hundred hunters visited the refuge during the period as well as the general public. Many hunters stopped in after an unsuccessful morning after ducks.

C - Refuge Participation - The Service film, Haunts For the Hunted, was shown to the newly organized Montesuma Sportsmens Club of about 100 members.

F - Violations - None were apprehended this period but the usual long hours were spent on patrol to prevent hunting of deer on and in the vicinity of the refuge.

Page 5

VII OTHER ITEMS

A great amount of the manager's time during the period was required in the preparation of management and trapping programs, reports and records. Too much time is also required for typing, card records, filing memoranda and regulations and the numerous routine items. A full time clerk should be a "must" for the refuge in 1947 in order to keep pace with the growing programs.

Regional Officer

1.

Merton Redway Refuge Manager January 7, 1947

			1	1	ATERFOWL		0			
	Refuge	Iontesum	ou arune	Mon	ths of Sept	ember	to Decemb	or _19	4.6	
	(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last S		(5) Young Produced		(6). Total
	102 10000	LIPE JL GTL	they mus by	more trian	They many.		and the about the	Broods	Estimated	Estimated
-	Common Name	Number	Date	Number	Date	Number	Date	Seen	Total	for Perio
I.	Swans:	102 02	pead bread	of papies	Reproved	a bawing r	ic preste au	fact should	d be omitte	Carl Stand Stand
	Whistling swan	aentarsi	ve breedl	generation (srood apart	a chould b	e serge oti	C10 01 4024	areas aggr	Butting
I.	(5) Young Produced :	Eavinas	ed munber	or hound ho	podra ed bae	ed on abse	a vatatona va	rd acoust o	canta on re	n.o.
4.	Geese: Canada goose	Sector States	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	500	10/1.0	25	10/18			500
	Cackling goose	period.	a mandela l	ter / Barris hu?	10/1.0	60	10/10	and the second second second	and a stress of	500
	Brant			active for	and the second second	Concerned Sh	a non ann a	and how will be	The neurost	17 N. 201.0
	White-fronted goose		Contrast State					1-1-1-3		All and a set
	Snow goose	-IN RLA	rees - Danie	er ar rus i	peoras bie		TUN'DEN TU	PELAPT OT /	THO .	Photos and
	Blue goose			APRIL CANAGE		1111111111				R. Franking
			and the u	trupper, 2960	This col	ann does n	a apply a	o resident	abectes	The second
I.	Ducks:		të natolis	record for	the pression	a durting t	per censor	oppearned 1	à the repor	Rot
	Mallard			6000	10/30	200	11/30		The All Property	10000
	Black duck Gadwall		o those a	5000	10/30	200	11/30	a Constanting of		8000
	Baldpate		ne period	1500	11/5	100	12/3	pecial abte	meter sheal	2000
	Pintail		stion to th	5000	11/5	500	11/25	apriling on T	efuge durin	6000
	Green-winged teal			500	11/6	25	11/15	a selection and		800
	Blue-winged teal			800	10/10	25	11/15	-		1000
	Cinnamon teal					1.1.1.1.1.1.1	1.916	is in Madmuy,	Haringe Rer.	
	Shoveller			25	11/5	Hebo	100 003	R		50
	Wood duck			1000	10/25	100	10/30			2000
	Redhead			100	11/20	100	12/1	1.		200
	Ring-necked duck			50	11/20	5	11/30			100
	Canvas-back Scaup			500	11/20	100	12/3	ents season		1000
	Golden-eye			800	11/25	500	12/5		and man	1000
	Buffle-head			25 100	11/25 11/5	2.25	12/5 11/25			50 200
	Ruddy duck			50	10/20	20	11/20	Calles - Calles	-	100
	American merganser			50	12/29					100
	Dadia	The second			Teest k	MARCH CONT		Store Store		
v.	Coot: Flor.gallinule	1		800	11/1	100	11/20			1000
	American coot		Binning .	2000	11/6	100	11/20	ported Sura	Sec. 1000	2200

.

Total Production:	SUMMARIES	
Geese	Total waterfowl usage during period 56,000	
Ducks	Peak waterfowl numbers 20,000	1000
winnely a for this . Termont.	30 Jaka	10
Coots	Areas used by concentrations All areas at varia	
	TTNE TTNE	- 69
	Principal nesting areas this season	100 7500
Ring-neoked duok	TOO II TOO TOO TOO	1 30
	TONE TONE TONE CONTRACT COMPT	300
	Reported by Herton Radway, Refuge Mgr.	
	where where we want the state of the state o	TOO
(1) Species:	INSTRUCTIONS In addition to the birds listed on form, other species occurring on refuge during reporting period should be added in appropriate spaces. Special attention should given to those species of local and National significance.	
LINGTT	In addition to the birds listed on form, other species occurring on refuge during reporting period should be added in appropriate spaces. Special attention should	be
(1) Species:	In addition to the birds listed on form, other species occurring on refuge during reporting period should be added in appropriate spaces. Special attention should given to those species of local and National significance. The first refuge record for the species during the season concerned in the report	be
 (1) Species: (2) First Seen: (3) Peak Concentra- 	In addition to the birds listed on form, other species occurring on refuge during reporting period should be added in appropriate spaces. Special attention should given to those species of local and National significance. The first refuge record for the species during the season concerned in the report period, and the number seen. This column does not apply to resident species.	be
 Species: First Seen: Peak Concentration: 	In addition to the birds listed on form, other species occurring on refuge during reporting period should be added in appropriate spaces. Special attention should given to those species of local and National significance. The first refuge record for the species during the season concerned in the report period, and the number seen. This column does not apply to resident species. The greatest number of the species present in a limited interval of time. The last refuge record for the species during the season concerned in the reporting	be ing ng re

.

-

2338

3-1751 Form NR-1A	(5)		T	(A) M3	IGRATORY B	IRDS		(S)	1	(1)	
(Nov. 1945)	Refuge Mon	tosuma			r than wa		nbor	to December		94 6	II. Doves
100	vernRe				montens	01				avob sa	
	(1)	(2		and the second	3)		4) Seen		(5) Productio	winged dov	(6) Total
Spe	ecies	<u> </u>	Seen	Peak N			Seen	Number	Total #	Total	Estimated
Commo	on Name	Number	Date	Number	Date	Number	Date	Colonies	Nests	Young	Number
I. Water and	d Marsh Birds:									eagle	Colden Duck i
pied bille	ed grebe			50	9/15	5	10/15			owl	100
herring go American b				50 50	11/25						500 50
great blue				150	9/30	2	11/15			afric	200
Wilsons sr	ed night heron			200 10	9/30	25	11/10				3 00 50
greater ye	ellow-legs			25	9/30 9/30						100
lesser yel	llew-legs			50	9/30						200
		by	Reported						·		
I. <u>Shorebird</u> Terns:	should be adde of local and Na coniiformes and	addition ng period species nes to Ci aradriifo	klist, 19 etc. In etc. In to those (Gaviifor Terns (Ch	0.U. Cheo "tern" be elven 100 11s and	9/20	as found terms as ourring o l attenti I 00 jaie II 500	general ecies oc	the correct the correct the Avoid the spaces lficance.	orde form pria	eeies:	soo
I. <u>Shorebird</u> <u>Terns</u> : black tern	ds, Gulls and abs of bronk a solution (abs)	addition ng period species nes to Ci aradriifo s)	klist, 19 eto. In e reporti to those (Gaviifor ambiforme	0.U. Cheo "tern" be diven the diven the diven the diven the diven tern (col	4 edt di 9 20 9 /20	banol as terms as terms as o galario 1 as 50 1 1 and 50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	general ecies oc	<pre>h. Avoid other sp te spaces.</pre>	orde form pria	1	
I. <u>Shorebird</u> <u>Terns</u> : black tern	ds, Gulls and and a brond and bos isoof to and semicitinoo (semi	addition ag period species nes to Ci aradriifo s) . Strigif	klist, 19 etc. In etc. In to those (Gaviifor <u>Terns</u> (Ch ambiformes	0.U. Cheo tern", be given be given be golg be golg be golg colg (Falc	in the A. Seagull' a refuge on shock of birds. Seague Big	as found terms as ourring o I ettenti II. <u>Ociate</u> III. <u>Dove</u> IV. <u>Pred</u>	161999 00 29109 10/5	<pre>h. Avoid other sp te spaces.</pre>	orde form pria sign	1	300
I. <u>Shorebird</u> <u>Terns</u> : black torn	ds, Gulls and abs of bronk a solution (abs)	addition ag period species nes to Ci aradriifo s) Strigif cerned.	klist, 19 etc. In etc. In to those (Gaviifor <u>Terns</u> (Ch oniformes esson con	0.U. Cheo tern", be given be given <u>an 001</u> <u>and col</u> <u>cons</u> (Col <u>cds</u> (Falc	in the A seagull' on shore birds os/e birds secous Bi species	as found terms as ourring o I 65 ate II. <u>500</u> III. <u>5000</u> IV. <u>Fred</u>	laneneg bo esice loss 10/5 0	h. Avoid , other sp te spaces. lficance. first refu	orde form sign : The	irst Seen	300
I. <u>Shorebird</u> <u>Terns</u> : black tern	ds, Gulls and abbs ad bloods abbs ad bloods abbs ad bloods (abbs abbig bas asaid abbig babbig babig babbig bas asaid a	addition ag period species mes to Ci aradriifo s) Strigif cerned. terval of	klist, 19 etc. In to those (Gaviifor <u>Terns</u> (Ch oniformes eason con	0.U. Cheo , "tern", iuring th be civen <u>sh</u> 601 <u>alls and</u> rds (Falc for the s it in a 1	in the A. "seagull" a refuge on should <u>c an OS/C</u> shirds. C aceous Bi species	as found terms as ourring o 1 attenti I. State II. Shor IV. Pred d for the the sped	leneral octor octor 10/5 10/5 0 10/5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	h. Avoid , other sp te spaces. lficance. first refu	orde form pria sign : The	irst Seen	300 (2) (3)
I. <u>Shorebird</u> <u>Terns</u> : black tern	ds, Gulls and abbs ac binome si bas iscol lo a complete abbin bas complete abbin babbin babbin bas complete abbin bas co	addition ag period species nes to Ci aradriifo s) corned. terval of oncerned.	klist, 19 etc. In etc. In to those (Gavilfor Terns (Ch oniformes eason con imited in season c	0.U. Cheo , "tern", be given be given <u>an 001</u> <u>an 001</u> <u>and (Col</u> <u>cons (Col</u> for the s for the s uring the	in the A. "seagull" a refuge on should birds. C secous Bi species species d	as found terms as ourring o I ettenti I	10/5 10/5 10/5	h. Avoid , other sp te spaces. lficance. first refo greatest n	orde form sign sign rs: The The	irst Seen	300 (3) (3) (4)

*

	6	7			~				3-1751
(1)	(2)	1 21	3) a vaota D	(4			(5)		(6)
III. <u>Doves and Pigeons</u> : Mourning dove		10	9/30	(othe)		amn	dino¥og	Refu	(Nov. 1945)
White-winged dove		(4) Last S	(3	(3 Peak N		(2) First S	12 6.458	(1) Decies	
IV. <u>Predaceous Birds</u> : Golden eagle			Date N	Number .	Date	TedmuM		easN aon	
Duck hawk Horned owl Magpie Raven	10/16	2	9/15 11/28	60 60 60			s <u>ebria</u> :	nd Marsh Led grobe gall distan	Est. 10
Crow bald eagle		5000 10	Anytime	180 200 10 35 80			romok ma	ue heron nod uight suige yollow-lo	25,009 25
			INSTRUCTION	S	Reported	by			
(1) Species:	Use the correct names order. Avoid general form, other species of priate spaces. Speci significance. Groups	terms a occurring al atten : I. <u>Wa</u> II. <u>Sh</u> III. <u>Do</u>	as "seagull" g on refuge ation should	, "tern" during t be give <u>sh Birds</u> ulls and eons (Co	, etc. I he report n to thos (Gaviifo <u>Terns</u> (C lumbiform	n additio ing perio e species rmes to C haradriif es)	n to the d should of local iconiifo ormes) formes an	birds lis be added l and Nat rmes and 0	sted on in appro- ional Gruiiformes) eous
(2) First Seen:	The first refuge reco	ord for t	the species	for the	season co	ncerned.	1 400	-	/
(3) Peak Numbers:	The greatest number of	of the sp	ecies prese	nt in a	limited i	nterval o	f time.		
(4) Last Seen:	The last refuge recor	rd for th	ne species d	uring th	ie season	concerned			
(5) Production:	Estimated number of y	oung pro	duced based	on obse	ervations	and actua	l counts	•	
(6) Total:	Estimated total number	er of the	e species us	ing the	refuge du	ring the	period c	oncerned.	

.

3-1752 Form NR-2 (April 1946)	Refuge Nontesume		0 0	PLAN	ND GAME BIRD Month			()	to De	•ember, 194 <u>6</u>	1613
(1) Species	(2) Density	in rem species	(3) Young Produced	d	(4) Sex Ratio	-	(5) emova	Trents	(6) Total	(7) Remarks	c) 2)
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd. Estimated	Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent informati specifically reque List introductions	sted.
Ring neeked solve pheasant factor bras b	Survey method use	bettimd .asets	gures su e tample	NY LA	everting ag ard type sy possible. representa as should b	vhere is of	coun	рив в		Provious estimate a tee high.	14111
sđo	tons and actual cou	taviesd	d ngon o	689					istimated n in represen	I) YOUNG PRODUCED:	0
A 011	, etc. Include dat	etnaene	rksy, ph	tuð	ily to wild	temi-	les p avai	appl 16 11	This column) SEX RATION	7)
	.bolreg proger ed	uring t	emoved d	n r	ach categor	in (redm	n Loi	Indicate to) REMOVALS:	ė)
y seasons,	rt period. This me fuge during certain	he repo the re	during t ing into		ng the refu s those mig	t ust	edimin birtd	tal ident	istimated t	i JATOT (d	3)
Also		area c ally re	tion and specific	tal Ja	termine pop formation n	ab ox Li Ji	bes: entine	bod ar pe	Indicate me include oth	7) REMARKS :	6)
			đs	1960	sould be	, ,	oo bo	pert	ent of elds	Only columns applic	•
1613											

-

.

INSTRUCTIONS

Months of said

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use

Use correct common name.

d un i Pertiment information not

specifically requested.

Floyi antimite antivers

.daki eci

DENSITY:

(2)

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.

(1)

3-1753 Form NR-3 (June 1945)) Refuge Kont	e suma	B	DIG GAME	MANT.	Calenda	ir Ye	ar 1946	-		4
(1) Species	(2) Density	(3) Young Froduced		(4) Lemovals	al	(5) Josses	In	(6) troductions	(7 Estima Total Popula	Refuge	(g) Sex Ratio
	Cover types, total Acreage of Habitat	Number	Hunting For Re-	stocking Sold For Research	Predation Management	Winter Ka	Number	Source	At period of Greatest use	As of Dec. 31	
Thite tailed deer	Swang-brush o beasd of	11W 25 58	tua .	pe symbols Figures hu ple stess ple stess r. Reasts	120	2 hnay Lo 10	here here bere	a prairie. Id be used founts on r reas should	60 Previous believed		1-10
	ting the year.		t dros	sech caves	at 1	elana I	stota	Indicate	ng Produced Svals : Ses :	(h) REN	
	es indicate total losses in ch stock was secured.			year.	atte	antimb ²	(TO3	each cat	: ENOITOUGO:	TRI (3)	·
	the refuge at period of its		Ced, 3	so as of I	ni sla	dance a	uda	greatest	AL REFUGE	POR	
	1911			ough reads							

Remarks:

INSTRUCTIONS

Form NR-3 - BIG GAME

(1)

1-10

SFECIES:	Use correct	common name	; i.e., Mule	deer,	, black-tailed deer,	white-tailed deer. It is	123
lish Listor	unnecessary	to indicate	sub-species	such	as northern or Loui	siana white-tailed deer.	serceds

BIG GAME

(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 20 84 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 31 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. tin he per

(3) YOUNG PRODUCED: Estimated total number of young produced on refuge.

(4) REMCVALS: Indicate total number in each category removed during the year.

(5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.

(6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.

 (7) TOTAL REFUGE POPULATION: Give the estimated population of <u>each species</u> 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.

Remarka:

3-1753

Form NR-3

Form NR-6

FISH

Year 194

1617

.*

Mon to sum Refuge_

	lative undance	Man days Fishing	Number	No. of	l Fishing Pounds	Number	ocking	moved for
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Taken	Permits	Taken	Stocked	Area Stocked	Restocking
carp Ver	y Icamiloid							
bullheads Sea	100							

No Use Permits were issued thru the year for commercial fishing. REMARKS: No restocking and no removals. .

Form NR-7

PLANTINGS (Marsh - Aquatic - Upland)

Refuge

Montesum

Year 194 6

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Plant- ing	Survival	Cause. of Loss	Remarks
Wild millet and Smartwood (Largeseed & modding)	Dike slope (Howly graded)	50 lb. aero (seed old)	About 2 as.	Seed	9/46			

TOTAL ACREAGE PLANTED:

Marsh and aquatic 2 eres Hedgerows, cover patches_____ Food strips, food patches_____ Forest plantings_____

3-1758 Form NR-8 (April 1946)

.

CULTIVATED CROPS

	Refuge	Montesuna			Year	194 6	-			londar Trin
	Unit		Avg.	Permi	ttee's		Go	overnmer	t's Sha	are or Return
Permit	or	Crops	Yield			Harve				Compensatory
No.	Loca	Grown	per	2	Bu.Har-	4				Services, or
100	tion	B O D d	Acre	Acres	vested	Acres	Bu.	Acres	Bu.	Cash Revenue
12825	Agrie Fields 5,6,7,9,10	None	che Vo	STARTS &	eremine al al			a pe 1	bns! 1	Fields too wet this season
8565	Agrie Fields 8,14,15	Corn o -	20 bu 20 bu 20 bu 5 bu	50 5 5	500 None 100	1	20	5	60 5	Eaton by birds prior to harvest
12650 addition of smithe pA . elliption		W.Hillet	22 bu 10 bu 8 bu 5 bu 20 bu	25 qual ai JI - erol 1eq blei	10 purper of the solution of t	og ju this colnau.		SIIII	10 8 5 20	DIRECTIONS FOR FREM
Boans Cora Oats	42 9	Acre 42 5	s Bus	hels 1050 Kone	Ac:	Harvest res	ted Bu.	Unha Acre	irvested es I	Total Revenue 1 3u. \$ 60
	No. 12825 8565 12650 12650 : Crop Beans Corn Oats	Permit Unit No. Loca 12825 Agrie Field \$565 Hay Field 8565 Hay Field 12650 Parts of LA Tr 28a & 29 Beams 42	Permit No. or Loca tion Crops Grown 12925 Agrie Field None 8565 Hay Field 1 Beans Agrie Field Beans Corn Oats Smartwood 12650 Parts of LA Tr 28a & 29 Beans Buckwheat 12650 Parts of LA Tr 28a & 29 Beans Buckwheat : Crop Acreage Permi Acre Beans 42 42 Corn 9 5 Cats 9 5	Unit Avg. Permit or Crops Yield No. Loca- Grown per 12825 Agrie Fields Nome Acre 12825 Agrie Fields Nome 20 bu 8565 Hay Field 1. Beans 20 bu Agrie Fields Sametweed 5 bu 12650 Parts of IA Beans 22 bu Tr 28a & 29 Buckwheat 10 bu 8 bu Smartweed 5 bu 20 bu 20 bu : Crop Acreage Permittee's Acres Bus Sametweed 5 bu : Crop Acreage Permittee's Acres Bus 5 5 : Crop Acreage Permittee's Acres Bus 5 1 : Crop Acreage Permittee's Acres Bus 5 1 :	Permit No. Unit or Loca- tion Crops Grown Avg. Yield per Acre Permi Sh Acres 12825 Agrie Fields None 20 bu 50 8565 Hay Field 1 Beans 20 bu 5 12650 Parts of IA Beans 22 bu 25 12650 Parts of IA Beans 22 bu 25 Smartwood 5 bu 20 bu 5 5 Cora 20 bu 5 5 5 Smartwood 5 bu 20 bu 5 5 Smartwood 5 bu 20 bu 5 5 Cora 9 5 None 5 None	Permit No. Unit or Loca- tion Crops Grown Avg. Yield per Acre Permittee's Share 12825 Agrie Fields 5,6,7,9,10 Nome Some Some Bu.Har- Acres 8565 Hay Field 1 Beans 3,14,15 Nome So So 12850 Parts of LA Tr 28a & 29 Beans Smartweed 20 bu 5 bu So So 12850 Parts of LA Tr 28a & 29 Beans Smartweed 22 bu 5 bu 25 550 12650 Parts of LA Tr 28a & 29 Beans Smartweed 20 bu 5 bu So So 12650 Parts of LA Tr 28a & 29 Beans Corn 20 bu So So 20 bu So So So So So So 20 bu So So So So So So 20 bu So So So So So So So 20 bu So So So So So So Acres 20 bu So So So So Acres So Acres 20 bu So S	Permit No. Unit or Loca- tion Crops Grown Avg. Per per Acre Permittee's Share Harve Harve Acres 12825 Agrie Field 5,6,7,9,10 None 50 500 Acres 8565 Hay Field 1 Beans 5,14,15 Beans 0 ats 20 bu 20 bu 5 bu 50 500 12826 Parts of IA Fr 28a & 29 Beans Smartweed 22 bu 5 bu 25 550 1 12650 Parts of IA Fr 28a & 29 Beans Smartweed Cora 22 bu 20 bu 25 550 1 12650 Parts of IA Fr 28a & 29 Beans Smartweed Cora 20 bu 5 5 1 12650 Parts of IA Cora Beans Smartweed Cora 20 bu 5 550 1 12650 Parts of IA Cora Beans Smartweed Cora 22 bu 20 bu 25 550 1 1 Cora 10 bu 8 bu 5 bu 5 bu Share Acres Go Harvest Acres Cora Cora Cora Cora 1 Cora 9 5 1000 1 Cora Cora Cora	Permit No. Unit or Loca- tion Crops Grown Avg. Yield per Acre Permittee's Share Arested Harvested 12825 Agrie Field 5,6,7,9,10 Nome Nome So So Acres Bu.Har- Acres Acres Bu.Har- Acres Acres Bu. 12825 Agrie Field 5,6,7,9,10 Nome So So So So Acres Bu. 8565 Hay Field 1 Beans 5,14,15 Cora 20 bu So Nome 1 20 12650 Farts of IA Fore Beans Smartweed 22 bu 25 550 1 1 20 12650 Farts of IA Fore Beans Smartweed 20 bu 20 bu 5 550 1 20 12650 Farts of IA Fore Beans Cora 20 bu 25 550 1 20 : Crop Acreage Permittee's Share Acres Share Harvested Acres Governme Harvested Acres Bu. : Crop Stare So Stare Acres Stare So Stare Acres Stare Acres Stare Acres Stare Acres Stare Acres Stare Acres <td>Unit Avg. Or Ion Permittee's Share Government Harvested Government Unharvested 12825 Agrie Field 5,6,7,9,10 None Solution Solution Acres Bu.Har- Acres Acres Bu.Har- Acres Acres Bu. Acres 12825 Agrie Field None Solution Solution Solution Solution Acres Bu. Acres 12825 Agrie Field Beans 20 bu Solution Solutio</td> <td>Unit Avg. Government's Share No. Loca- 100 Grown 12825 Agrie Field 5,6,7,9,10 Some 8565 Say Field 1 Beams 20 bu 5,14,15 Cora Cora 20 bu 5 bu 5 bu 12650 Parts of LA Beams Tr 28a & 29 Buetwheat 10 bu Smartweed 5 bu 10 bu 5 bu 11 cora Some field Smartweed 5 bu 11 cora Some field Smartweed 5 bu 11 cora 5 bu 12650 Parts of LA Beams Tr 28a & 29 Buetwheat 10 bu Smartweed 5 bu 20 bu 5 bu</td>	Unit Avg. Or Ion Permittee's Share Government Harvested Government Unharvested 12825 Agrie Field 5,6,7,9,10 None Solution Solution Acres Bu.Har- Acres Acres Bu.Har- Acres Acres Bu. Acres 12825 Agrie Field None Solution Solution Solution Solution Acres Bu. Acres 12825 Agrie Field Beans 20 bu Solution Solutio	Unit Avg. Government's Share No. Loca- 100 Grown 12825 Agrie Field 5,6,7,9,10 Some 8565 Say Field 1 Beams 20 bu 5,14,15 Cora Cora 20 bu 5 bu 5 bu 12650 Parts of LA Beams Tr 28a & 29 Buetwheat 10 bu Smartweed 5 bu 10 bu 5 bu 11 cora Some field Smartweed 5 bu 11 cora Some field Smartweed 5 bu 11 cora 5 bu 12650 Parts of LA Beams Tr 28a & 29 Buetwheat 10 bu Smartweed 5 bu 20 bu 5 bu

DIRECTIONS FOR PREPARING FORM NR-8 CULTIVATED CROPS

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

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

<u>Permit No.</u> - List the number of the Special Use Permit issued to the individual.

<u>Use or Location</u> - The Unit No. or name specified in the Economic Use Plan should be listed in this column.

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

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

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

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

<u>Compensatory Services. or Cash Revenue</u> - Show other services received by the Government in cooperative farming activities, the number of acres of food strips planted for wildlife, the amount of wildlife crops not otherwise reported that are planted by cooperators for the Service, or the cultivation of wildlife plantations. If the permit is on a fee basis, the total cash revenue received by the Service. 3-1759 Form NR-9

COLLI IONS AND RECEIPTS OF PLANTING : CK (Seeds, rootstocks, trees, shrubs)

Refuge. Mon te suma

Year 194.

		Coll	lections		Rece	ipts		
Species	Amount	Date or Period or Collection	Method	Unit Cost	Amount	Source	Total Amounts on Hand	Amount Surplus
wildeelery seed pods	50 lb.	0etober,1946	By hand with beat	£ \$.10 1b.				Shipped to Moesehern
5.								

Form NR-10

.....

HAYING AND GRAZING

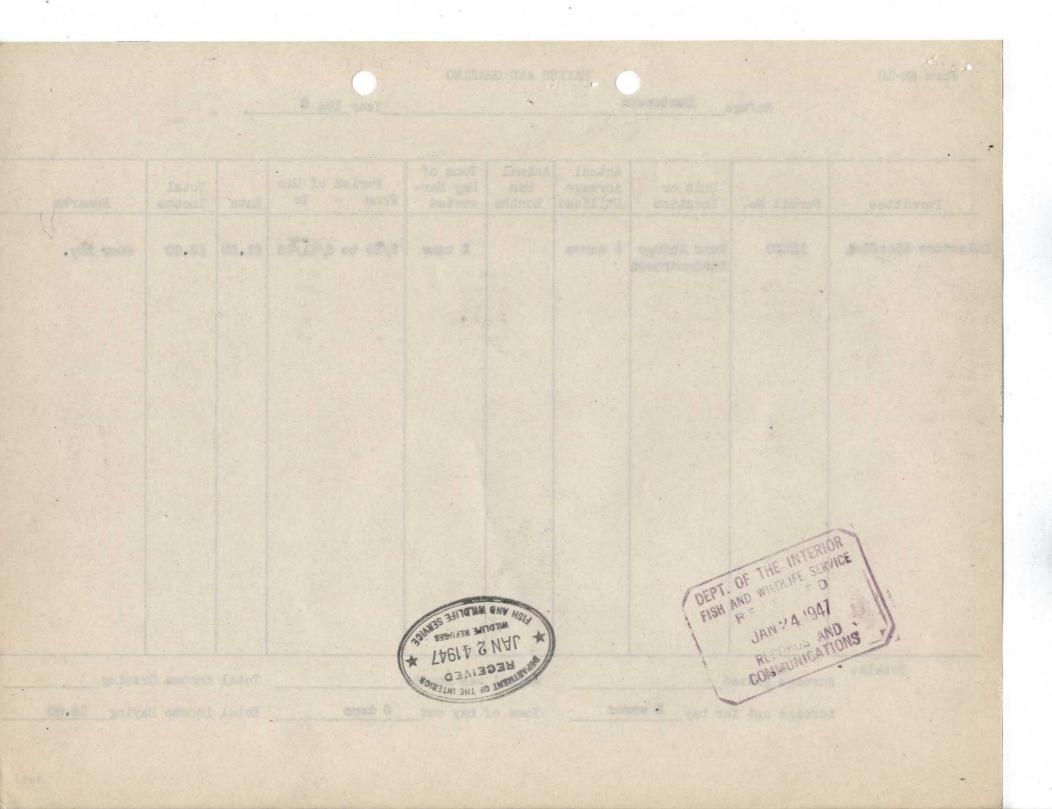
~

.

Non to sume Refuge_

Year 194

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Har- vested	Period of Use From - To	Rate	Total Income	Remarks
Salvatore Glardina	12850	Near Refuge Headquarters	5 acres		5 tons	7/29 to 8/31/46	\$1.00	\$5.00	Po or hay.
				Contra la					
Totals:	creage graze	d		Animal	use months		Total	income G	razing
A	creage cut f	for hay 5 ac	105	Tons of	hay cut	5 tons	Total	income Ha	aying \$5.00



3-1761 Form NR-11

TIMBER REMOVAL

Year 194

SHE .

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
John Forjone Roland Belknap Stewart Chalker Ceeil Reynolds Robert Scott Soc. Vac. Oil Co. Soc. Vac. Oil Co. Robert Scott Foster Helmer Foster Helmer	12827 12832 12827 12831 12826 16275 12829 12833 12834	South End South end Tract 12 Tract 5 Tract 5 Tract 58 Tract 28a Tract 28a Tract 5	E Flagg	40 cords 10 cords 14 cords 25 cords 6 cords 100 cords 49 cords 6 cords Removal 200 bundles 500 "	 •75 •50 •25 1.00 1.00 •25 •25 1.00 •01 •01 	80.00 5.00 3.50 25.00 12.25 6.00 2.00 5.00	Clear out olear out olear out olear out olear out olear out olear out	Swp. maple, elm and ash n
LeRoy Goldsmith	12836	27a à 53		250 * 950 bundles	.01	2.50		

Total income \$112.75

Total acreage cut over.....

Method of slash disposal Scatter

Ties.....

Refuge. Montesuma

3-1761 Form NR-11

TIMBER REMOVAL

Year 194 6.

à -

Permittee	.oN jimie?	Unit or Location	egsetoA	No. of Units Expressed in B. F., ties, etc.		Total Income	Reservationa and/or Dismeter Limits	Bpecies Cut
din Serjonn oland Selimsp berert Challer seil Reynolds obert Soots os. Vac. 61 Go. obert South	120377 22632 12637 12827 12926 12926 12926 12926	Conthe Bud Stock end Stock 12 Stock 12 Stock 2 Stock 28 Stock 28 Stock 28 Stock 28 Stock 5 Stock 5 Sto		40 cords 10 cords 14 cords 25 cords 4 cords 49 cords 6 cords 6 cords	* * *	80.00 8.30 8.30 85.00 85.00 12.95 6.00	Clear rub clear out clear out olear out olear out olear cab olear cat olear cat	rfø,signa .gas das ins o o s s z e
ostor Helmor oster Telmur eloy Coldanith	12820 12054 12056	feby uist focy nist So a sys	<u>mari</u> a		50. 50. 50.	8.00 6.00 8.50 9.50	-	Listias P P
CEIVED 1 4 1947 KE NERMEN LOLIFE SERVICE	TOT AND IN							